AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE	PAGE OF PAGES
	1

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0002	08/30/02		

6. ISSUED BY CODE

JACKSONVILLE DISTRICT OFFICE
U.S. ARMY CORPS OF ENGINEERS
P.O. BOX 4970
JACKSONVILLE, FLORIDA 32232-0019
VICKI V. TIPTON (904) 232-1146

7. ADMINISTERED BY *(If other than Item 6)* CODE

JACKSONVILLE DISTRICT OFFICE
U.S. ARMY CORPS OF ENGINEERS
400 WEST BAY STREET
JACKSONVILLE, FLORIDA 32202-4412

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*

CODE FACILITY CODE

(√)	9A. AMENDMENT OF SOLICITATION NO.
X	DACW17-02-B-0020
	9B. DATED *(SEE ITEM 11)* 7/16/02
	10A. MODIFICATION OF CONTRACTS/ORDER NO.
	10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☒ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(√)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

MAINTENANCE DREDGING, NEW PASS 8 & 10 FOOT PROJECT AND GORDON PASS 10 & 12 FOOT PROJECT, NEW PASS AND GORDON PASS, FLORIDA IS AMENDED AS FOLLOWS:

SEE CONTINUATION PAGE FOR CHANGES.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED

SPECIFICATIONS:

A. Asterisks appear before and after the line or lines where revisions have been made to the text on the enclosed revised pages and pertain only to the changes made by this amendment except where the reverse side of a page has been previously amended; however, these can be identified by the amendment number opposite the page number at the bottom of each page.

A. Asterisks appear before and after the line or lines where revisions have been made to the text on the enclosed revised pages and pertain only to changes made by this amendment.

B. The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not marked with asterisks.

SECTION 00010 (Descriptive Change) – Page 1 (Standard Form 1442), Revise the first sentence of in Item 13A to state the following: "Sealed offers in original and 0 copies to perform the work are due at the place specified in Item 8 by 2:00 PM local time 9/12/02."
SECTION 00010A - Delete Section 00010A and replace with revised attached section.
SECTION 00800A - Delete Section 00800A and replace with revised attached section.
SECTION 01000 - Delete Section 01000 and Appendix H and replace with revised attached section and appendix. Other appendix remains unchanged.
SECTION 01270 - Delete Section 01270 and replace with revised attached section.
SECTION 01330 – Delete Appendix A (Submittal Register) and replace with revised attached appendix. Section and other appendix remain unchanged.
SECTION 01355 - Delete Section 01355 and replace with revised attached section. Appendices remain unchanged.
SECTION 01411 - Delete Section 01411 and replace with revised attached section. Appendices remain unchanged.
SECTION 01452 - Delete Section 01452 and replace with revised attached section. Appendices remain unchanged.
SECTION 01525 - Delete Section 01525 and replace with revised attached section. Appendix remains unchanged.
SECTION 02325 - Delete Section 02325 and replace with revised attached section. Appendices remain unchanged.

DRAWINGS: D.O. File No. 61-38,057 dated November 2000. Delete the following drawings and replace with revised attached sheets:

Drawing 1/2.
Drawing 1/4.
Drawing 2/1.
Drawing 2/2.
Drawing 2/4.
Drawing 2/6.
Drawing 2/7.
Drawing 2/11.
Drawing 2/15.
Drawing 3/1.
Drawing 3/2.
Drawing 3/5.
Drawing 3/6.
Drawing 3/7.

SECTION 00010A

LINE ITEMS AND PRICING SCHEDULE

MAINTENANCE DREDGING, NEW PASS AND GORDON PASS PROJECT

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
	ALTERNATIVE I				
0001	BASE: MAINTENANCE DREDGING, 8/10-FOOT PROJECT NEW PASS, FL CUT 1 (STA. 7+00) THRU CUT 2 (STA. 15+00) AND 10/12-FOOT PROJECT GORDON PASS, FL CUT 1 (STA. 15+00) THRU CUT 2 (STA. 7+00)				
0001AA	MOBILIZATION AND DEMOBILIZATION		LUMP SUM		$_____
0001AB	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LIDO KEY BETWEEN R-35.5 AND R-38.5 (ESTIMATED QUANTITY) (SEE NOTE 1)	123,000	CUBIC YARD	$_____	$_____
0001AC	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	85,000	CUBIC YARD	$_____	$_____
0001AD	EXCAVATION, UNCLASSIFIED, GORDON PASS PLACED ON KEEWAYDIN KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	65,000	CUBIC YARD	$_____	$_____
0001AE	ENDANGERED AND THREATENED SPECIES AND MIGRATORY BIRD MONITORING		LUMP SUM		$_____
0001AF	TURBIDITY MONITORING		LUMP SUM		$_____
0001AG	BEACH TILLING (ESTIMATED QUANTITY)	50	ACRE	$_____	$_____
0001AH	SEA TURTLE TRAWLING AND RELOCATION (HOPPER DREDGE ONLY)	10	DAY	$_____	$_____
	TOTAL ALTERNATIVE I BASE (LINE ITEMS 0001 THRU 0001AH)				$_____
0002	OPTION 1: MAINTENANCE DREDGING, 8/10-FOOT PROJECT, NEW PASS CUT 3 (STA. 9+00) THRU CUT 4 (STA. 9+00)				
0002AA	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	8,500	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE I OPTION 1 (LINE ITEM 0002AA)				$_____

LINE ITEMS AND PRICING SCHEDULE

MAINTENANCE DREDGING, NEW PASS AND GORDON PASS PROJECT

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
0003	OPTION 2: MAINTENANCE DREDGING, 8/10-FOOT PROJECT, NEW PASS CUT 6 (STA. 2+00 THRU STA. 32+00)				
0003AA	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	17,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE I OPTION 2 (LINE ITEM 0003AA)				$_____
0004	OPTION 3: MAINTENANCE DREDGING, 8/10-FOOT PROJECT, NEW PASS TURNING BASIN				
0004AA	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	4,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE I OPTION 3 (LINE ITEM 0004AA)				$_____
0005	OPTION 4: MAINTENANCE DREDGING, 10/12-FOOT PROJECT, GORDON PASS CUT 3 (STA. 6+00) THROUGH CUT 4 (STA. 9+00)				
0005AA	EXCAVATION, UNCLASSIFIED, GORDON PASS PLACED ON KEEWAYDIN KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	22,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE I OPTION 4 (LINE ITEM 0005AA)				$_____
0006	OPTION 5: MAINTENANCE DREDGING, 10/12-FOOT PROJECT, GORDON PASS CUT 6 (STA. 6+00) THROUGH CUT 7 (STA. 15+00)				
0006AA	EXCAVATION, UNCLASSIFIED, GORDON PASS PLACED ON KEEWAYDIN KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	28,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE I OPTION 5 (LINE ITEM 0006AA)				$_____
	TOTAL ALTERNATIVE I BASE AND OPTIONS 1 THRU 5 (LINE ITEMS 0001 THROUGH 0006AA)				$_____

SECTION 00010A

LINE ITEMS AND PRICING SCHEDULE

MAINTENANCE DREDGING, NEW PASS AND GORDON PASS PROJECT

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL

NOTES: (1) QUANTITY INCLUDES THE REQUIRED DEPTH AND ALLOWABLE OVERDEPTH AND THE EXPECTIED SHOALING.

OFFERORS MUST BID ON ALL LINE ITEMS. SEE PROVISION AT 52.214-18 (SECTION 00100).

FAILURE TO COMPLETE AND RETURN ALL REQUIRED SUBMISSIONS (SF 1442, SECTION 00010A AND SECTION 00600) COULD RENDER YOUR BID NONRESPONSIVE.

SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS/EVALUATION FACTORS FOR AWARD".

THE GOVERNMENT RESERVES THE RIGHT TO EXERCISE OPTION ITEM(S) ANYTIME PRIOR TO DEMOBILIZATION OF EQUIPMENT. THE GOVERNMENT INTENDS TO PROVIDE PRELIMINARY NOTICE ON EXERCISING OPTION ITEM(S) NO LATER THAN 30 DAYS PRIOR TO EXERCISING OPTION.

THE GOVERNMENT INTENDS TO AWARD EITHER ALTERNATIVE I OR ALTERNATIVE II (AS IDENTIFIED IN THE DESCRIPTION OF WORK ON PAGE 00010-3). OPTION ITEMS 1 THROUGH 5 WILL BE APPLICABLE TO EITHER ALTERNATIVE AND WILL BE EVALUATED IN ACCORDANCE WITH FAR 52.217-5. THE GOVERNMENT'S PREFERENCE IS TO AWARD ALTERNATIVE II AS LONG AS THE PRICES ARE WITHIN AVAILABLE FUNDING.

SECTION 00010A

LINE ITEMS AND PRICING SCHEDULE

MAINTENANCE DREDGING, NEW PASS AND GORDON PASS PROJECT

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
	ALTERNATIVE II				
0007	BASE: MAINTENANCE DREDGING, 8/10-FOOT PROJECT NEW PASS, FL CUT 1 (STA. 7+00) THRU CUT 2 (STA. 15+00) AND 10/12-FOOT PROJECT GORDON PASS, FL CUT 1 (STA. 15+00) THRU CUT 2 (STA. 7+00)				
0007AA	MOBILIZATION AND DEMOBILIZATION		LUMP SUM		$_____
0007AB *	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LIDO KEY BETWEEN R-35.5 AND R-44 INCLUDING GRADING EXISTING BEACH TO EL. +3.0' NGVD (ESTIMATED QUANTITY) (SEE NOTE 1)	123,000	CUBIC YARD	$_____	$_____ *
0007AC	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	85,000	CUBIC YARD	$_____	$_____
0007AD	EXCAVATION, UNCLASSIFIED, GORDON PASS PLACED ON KEEWAYDIN KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	65,000	CUBIC YARD	$_____	$_____
0007AE	ENDANGERED AND THREATENED SPECIES AND MIGRATORY BIRD MONITORING		LUMP SUM		$_____
0007AF	TURBIDITY MONITORING		LUMP SUM		$_____
0007AG	BEACH TILLING (ESTIMATED QUANTITY)	60	ACRE	$_____	$_____
0007AH	SEA TURTLE TRAWLING AND RELOCATION (HOPPER DREDGE ONLY)	10	DAY	$_____	$_____
	TOTAL ALTERNATIVE II BASE (LINE ITEMS 0007 THRU 0007AH)				$_____
0008	OPTION 1: MAINTENANCE DREDGING, 8/10-FOOT PROJECT, NEW PASS CUT 3 (STA. 9+00) THRU CUT 4 (STA. 9+00)				
0008AA	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	8,500	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE II OPTION 1 (LINE ITEM 0008AA)				$_____

LINE ITEMS AND PRICING SCHEDULE

MAINTENANCE DREDGING, NEW PASS AND GORDON PASS PROJECT

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
0009	OPTION 2: MAINTENANCE DREDGING, 8/10-FOOT PROJECT, NEW PASS CUT 6 (STA. 2+00 THRU STA. 32+00)				
0009AA	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	17,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE II OPTION 2 (LINE ITEM 0009AA)				$_____
0010	OPTION 3: MAINTENANCE DREDGING, 8/10-FOOT PROJECT, NEW PASS TURNING BASIN				
0010AA	EXCAVATION, UNCLASSIFIED, NEW PASS PLACED ON LONGBOAT KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	4,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE II OPTION 3 (LINE ITEM 0010AA)				$_____
0011	OPTION 4: MAINTENANCE DREDGING, 10/12-FOOT PROJECT, GORDON PASS CUT 3 (STA. 6+00) THROUGH CUT 4 (STA. 9+00)				
0011AA	EXCAVATION, UNCLASSIFIED, GORDON PASS PLACED ON KEEWAYDIN KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	22,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE II OPTION 4 (LINE ITEM 0011AA)				$_____
0012	OPTION 5: MAINTENANCE DREDGING, 10/12-FOOT PROJECT, GORDON PASS CUT 6 (STA. 6+00) THROUGH CUT 7 (STA. 15+00)				
0012AA	EXCAVATION, UNCLASSIFIED, GORDON PASS PLACED ON KEEWAYDIN KEY (ESTIMATED QUANTITY) (SEE NOTE 1)	28,000	CUBIC YARD	$_____	$_____
	TOTAL ALTERNATIVE II OPTION 5 (LINE ITEM 0012AA)				$_____
	TOTAL ALTERNATIVE II BASE AND OPTIONS 1 THRU 5 (LINE ITEMS 0007 THROUGH 0012AA)				$_____

LINE ITEMS AND PRICING SCHEDULE

MAINTENANCE DREDGING, NEW PASS AND GORDON PASS PROJECT

LINE ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL

NOTES: (1) QUANTITY INCLUDES THE REQUIRED DEPTH AND ALLOWABLE OVERDEPTH AND THE EXPECTED SHOALING.

OFFERORS MUST BID ON ALL LINE ITEMS. SEE PROVISION AT 52.214-18 (SECTION 00100).

FAILURE TO COMPLETE AND RETURN ALL REQUIRED SUBMISSIONS (SF 1442, SECTION 00010A AND SECTION 00600) COULD RENDER YOUR BID NONRESPONSIVE.

SEE SECTION 00100, "INSTRUCTIONS TO OFFERORS/EVALUATION FACTORS FOR AWARD".

THE GOVERNMENT RESERVES THE RIGHT TO EXERCISE OPTION ITEM(S) ANYTIME PRIOR TO DEMOBILIZATION OF EQUIPMENT. THE GOVERNMENT INTENDS TO PROVIDE PRELIMINARY NOTICE ON EXERCISING OPTION ITEM(S) NO LATER THAN 30 DAYS PRIOR TO EXERCISING OPTION.

THE GOVERNMENT INTENDS TO AWARD EITHER ALTERNATIVE I OR ALTERNATIVE II (AS IDENTIFIED IN THE DESCRIPTION OF WORK ON PAGE 00010-3). OPTION ITEMS 1 THROUGH 5 WILL BE APPLICABLE TO EITHER ALTERNATIVE AND WILL BE EVALUATED IN ACCORDANCE WITH FAR 52.217-5. THE GOVERNMENT'S PREFERENCE IS TO AWARD ALTERNATIVE II AS LONG AS THE PRICES ARE WITHIN AVAILABLE FUNDING.

NOTE NOTE NOTE NOTE NOTE

THIS PROJECT INCORPORATES BOTH DREDGING AND HEAVY CONSTRUCTION WAGE DECISIONS.

THE HEAVY CONSTRUCTION WAGE DECISION MAY ONLY BE APPLIED TO OPERATIONS OCCURRING ON LAND. IT CANNOT BE APPLIED TO WORK OF ANY SORT CONDUCTED ABOARD VESSELS OR FLOATING PLANT OF ANY TYPE.

IF YOU HAVE QUESTIONS CONCERNING THE APPLICATION OF THE WAGE DECISIONS FURNISHED FOR THIS PROJECT, PLEASE CONTACT PHYLLIS M. GARFIELD, LABOR RELATIONS SPECIALIST, OFFICE OF COUNSEL, 904-232-3761.

General Decision Number **FL020045**
Superseded General Decision No. FL010045
State: Florida
Construction Type:
DREDGING
County(ies):
STATEWIDE
DREDGING CONSTRUCTION PROJECTS
FLORIDA (All Counties on the Atlantic & Gulf Coast East of the Aucilla River & all tributary waterways).

Modification Number	Publication Date
0	03/01/2002
1	03/29/2002

COUNTY(ies):
STATEWIDE

* ENGI0025E 02/01/2002

	Rates	Fringes
HYDRAULIC DREDGES 20" & OVER		
Leverman	19.22	4.01+a
Engineer	18.09	4.01+a
Derrick Operator	16.78	4.01+a
Mate	15.70	3.81+a
Welder	16.22	3.81+a
Spill Barge Operator	16.45	3.81+a
Carpenter	16.68	4.01+a
Electrician	17.10	4.01+a
Oiler	12.32	3.61+a
Deckhand	11.53	3.61+a
Shoreman	11.30	3.61+a
Handyman	11.53	3.61+a
Fill Placer	16.68	4.01+a
Asst. Fill Placer	15.18	4.01+a
HYDRAULIC DREDGES UNDER 20"		
Leverman	10.03	1.73+b
Engineer	9.59	1.73+b
Welder	9.79	1.73+b
Mate	8.82	1.73+b
Oiler & Fireman	8.11	1.73+b
Deckhand	7.77	1.73+b
Launchman	8.19	1.73+b
Shoreman	7.82	1.73+b
Spill Barge Operator	8.68	1.73+b
Spider Barge Operator	8.68	1.73+b
Cook	8.11	1.73+b
Mess Cook	7.71	1.73+b
Messman & Janitor	7.53	1.73+b
CLAMSHELL DREDGES:		
Operator	19.13	4.01+a
Engineer	17.11	4.01+a
Welder	15.96	3.81+a
Mate	15.37	3.81+a
Oiler	12.32	3.61+a
Deckhand	11.53	3.61+a
Scowman	11.69	3.61+a
Handyman	11.53	3.61+a

DIPPER DREDGES:		
Operator	19.31	4.01+a
Engineer	17.91	4.01+a
Welder	16.22	3.81+a
Mate	15.70	3.81+a
Oiler	12.32	3.61+a
Deckhand	11.53	3.61+a
Scowman	11.69	3.61+a
Handyman	11.53	3.61+a
TUGS LESS THAN 600 HP:		
Tug Master	15.34	4.01+a
Tug Captain	14.85	4.01+a
Tug Deckhand	11.53	3.61+a
TUGS 600 HP TO 1350 HP:		
Tug Master	16.30	401+a
Tug Captain	15.00	4.01+a
Tug Deckhand	11.53	3.61+a
TUGS GREATER THAN 1350 HP		
Tug Master	17.34	4.01+a
Tug Captain	16.44	4.01+a
Tug Engineer	16.44	4.01+a
Tug Deckhand	11.53	3.61+a
STEWARD DEPARTMENT:		
Steward	12.70	3.81+a
2nd Cook	11.53	3.61+a
Night Cook	11.53	3.61+a
Messman	11.31	3.61+a
Janitor	11.53	3.61+a
DRILL BOATS:		
Engineer	18.08	4.01+a
Driller	17.42	4.01+a
Blaster	17.42	4.01+a

FOOTNOTE:

a. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and Good Friday. Plus Vacation Contribution of 7% of straight time pay for all hours worked.

b. New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day. Plus Vacation Contribution of 7% of stright time pay for all hours worked.

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a

position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

General Decision Number **FL020032**
Superseded General Decision No. FL010032
State: Florida
Construction Type:
HEAVY
County(ies):
BROWARD LEE ST LUCIE
COLLIER MARTIN
DADE PALM BEACH
HEAVY CONSTRUCTION PROJECTS (Excluding Sewer & Water Lines)

Modification Number	Publication Date
0	03/01/2002
1	03/29/2002
2	05/10/2002
3	06/07/2002
4	07/05/2002

COUNTY(ies):
BROWARD LEE ST LUCIE
COLLIER MARTIN
DADE PALM BEACH

CARP1026D 01/01/2002

	Rates	Fringes
PILEDRIVERMEN	19.00	5.70

ELEC0323C 09/05/1993

	Rates	Fringes
MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
ELECTRICIANS	15.88	21.5%

ELEC0349B 06/01/2002

	Rates	Fringes
DADE COUNTY		
ELECTRICIANS:		
Electrical contracts including materials that are less than $2,000,000	20.50	4.30+8%
Electrical contracts including materials that are $2,000,000 and over	22.96	4.30+8%

ELEC0728A 09/01/2001

	Rates	Fringes
BROWARD AND COLLIER COUNTIES		
ELECTRICIANS	22.96	3%+6.18

ELEC0915B 12/01/2000

	Rates	Fringes
LEE COUNTY		
ELECTRICIANS	20.09	27%+.25

ENGI0487B 10/01/2001

	Rates	Fringes
DADE COUNTY		
POWER EQUIPMENT OPERATORS:		
Backhoes, Bulldozers	18.30	3.40

Cranes	21.88	3.40
Oilers	16.15	3.40

ENGI0487C 07/01/2001

	Rates	Fringes
BROWARD, COLLIER, LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
POWER EQUIPMENT OPERATRORS:		
All Tower Cranes and all Cranes with boom length 150 ft and over	21.64	5.50
Cranes with boom length less than 150 ft, Backhoes, and Bulldozers	20.92	5.50
Oilers	17.69	5.50

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* PLUM0630A 07/01/2002

	Rates	Fringes
LEE, MARTIN, PALM BEACH, AND ST LUCIE COUNTIES		
PIPEFITTERS	26.26	5.91

PLUM0725B 01/16/2001

	Rates	Fringes
BROWARD AND DADE COUNTIES		
PIPEFITTERS	23.10	5.90

SUFL2016A 01/26/1990

	Rates	Fringes
CARPENTERS	12.71	2.71
CEMENT MASONS	10.50	
LABORERS	5.72	
POWER EQUIPMENT OPERATORS:		
Loaders	11.25	2.55

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

==========

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial

contact is not satisfactory, then the process described in 2.) and 3.) should be followed.
With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.
3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

General Decision Number FL020030

General Decision Number **FL020030**
Superseded General Decision No. FL010030
State: Florida
Construction Type:
HEAVY
County(ies):

BREVARD	ORANGE	POLK
HERNANDO	OSCEOLA	SARASOTA
HILLSBOROUGH	PASCO	SEMINOLE
MANATEE	PINELLAS	

HEAVY CONSTRUCTION PROJECTS (Does not include Sewer and Water Line Construction Projects)

Modification Number	Publication Date
0	03/01/2002

COUNTY(ies):

BREVARD	ORANGE	POLK
HERNANDO	OSCEOLA	SARASOTA
HILLSBOROUGH	PASCO	SEMINOLE
MANATEE	PINELLAS	

SUFL2017A 01/26/1990

	Rates	Fringes
CARPENTERS	10.08	
CEMENT MASONS	11.00	1.42
ELECTRICIANS	16.40	2.40+4%
IRONWORKERS:		
Reinforcing	11.20	3.11
LABORERS:		
Unskilled	6.05	
Landscape	5.74	1.58
Pipelayers	7.97	
MILLWRIGHTS	10.43	1.14
PLUMBERS	8.97	
PIPEFITTERS	9.73	
POWER EQUIPMENT OPERATORS:		
Backhoes	10.35	2.00
Bulldozers	9.61	2.00
Crane	10.94	2.00
Loaders	10.35	2.00
Grader	10.35	2.00
Mechanic	10.71	2.00
Roller	10.35	2.00
Scraper	10.35	2.00
TRUCK DRIVERS	7.52	

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations

indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

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Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

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Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01000

GENERAL REQUIREMENTS

-- End of Section Table of Contents --

SECTION 01000

GENERAL REQUIREMENTS

PART 1 GENERAL

1.1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

a. Read this paragraph in conjunction with the Clause COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (FAR 52.211-10) of Section 00700 CONTRACT CLAUSES.

b. The Contractor shall commence dredging thirty (30) calendar days after receipt of the Notice to Proceed.

c. In addition to the above, the following shall apply: The words "commence work" means "commence dredging." The commencement time of thirty (30) calendar days applies unless precluded by inclement weather as determined by the Contracting Officer.

d. Turtle monitoring on the beaches will be conducted in conjunction with construction activities. All turtle monitoring will be conducted by others; however, the Contractor will be responsible for complying with all directions from the turtle monitors. Dredging operations will be coordinated with the Contracting Officer to assure that turtle monitoring is conducted in all work areas. The Contractor will not work in any area until clearance has been given by the turtle watchers.

1.2 LIQUIDATED DAMAGES-CONSTRUCTION

Refer to the Clause LIQUIDATED DAMAGES-CONSTRUCTION (SEP 2000) (FAR 52.211-12) of Section 00700 CONTRACT CLAUSES.

1.3 PHYSICAL DATA

Read this paragraph in conjunction with the Clause PHYSICAL DATA (FAR 52.236-4) of Section 00700 CONTRACT CLAUSES.

1.3.1 Physical Conditions

The indications of physical conditions on the drawings and in the specifications are the result of site investigations by surveys and/or by core borings. The core boring logs and laboratory data are appended to the end of this Section and are the latest available geotechnical data for the project area. The core boring locations thereof are shown on the drawings. While the Government's borings are representative of subsurface conditions at their respective locations and vertical reaches, local variations characteristic of the rocks and subsurface materials of this region are to be expected. The material recovered from the core borings for New Pass is available for inspection by prospective bidders at the Corps of Engineers District Warehouse, 3077 Talleyrand Avenue, 20th Street, Jacksonville, Florida (between the hours of 7:00 am and 2:30 pm, except Federal holidays) during the entire bid period, and prospective bidders are strongly urged to examine the material and assure themselves that they have made the best possible evaluation of the subsurface conditions. Prospective bidders

shall notify the Jacksonville District Explorations Manager at (904) 232-3295 at least four (4) working days before the visit with the following information: (1) the project title; (2) the specific core borings or entire set which are to be viewed; (3) the date, time, and duration of the visit; (4) the name of the person(s) and company to view the borings; and, (5) a point of contact and phone number regarding the visit. Bidders shall form their own conclusions from this examination prior to submission of their bids. Bidders shall record their core examination visit in a record book maintained at the inspection site. The material recovered from the core borings for Gordon Pass is not available for inspection.

1.3.2 Location

a. New Pass is located on the west coast of Florida in Sarasota County between the south end of Longboat Key and the north end of Lido Key. Lido Key is located in Sarasota County. Longboat Key is located in both Sarasota and Manatee Counties.

b. Gordon Pass is located on the west coast of Florida in Collier County the south end of Naples and the north end of Keewaydin Island.

1.3.3 Weather Conditions

The project area is subject to tropical storms and hurricanes from June through November, and to windy and/or rainy weather, including severe electrical storms and other sudden and locally severe meteorological occurrences that approach hurricane conditions, during any time of the year. The Contractor shall maintain full-time monitoring of the NOAA marine weather broadcasts, and avail themselves of such other local commercial weather forecasting services as may be available. It shall be the Contractor's responsibility to obtain information concerning rain, wind, and wave conditions that could influence his/her dredging and disposal operations. Reference is made to the following publications which contain climatological and meteorological observations and data. The below publications are available for review in the office at the U.S. Army Corps of Engineers, Jacksonville District Office, 400 West Bay Street, Jacksonville, Florida.

a. Local Climatological Data - Monthly Summary, published by NOAA, Asheville, North Carolina. Subscription price and ordering information available from the National Climatic Data Center, Federal Building, Asheville, N.C. 28801 or http://www.ncdc.noaa.gov/. This publication gives hourly wind speed and direction observations for Tampa International Airport. The Annual Summary gives a summary of the observations for the period of record.

b. United States Coast Pilot, Atlantic Coast, Gulf of Mexico, Puerto Rico, and Virgin Islands, published by NOAA. For sale by National Ocean Service and its agents.

c. Summary of Synoptic Meteorological Observations: North American Coastal Marine Areas Atlantic and Gulf Coasts, produced by Naval Weather Service, U.S. Department of Commerce. Distributed by National Technical Information Service, U.S. Department of Commerce.

1.3.3.1 Publications

The following publications include wave, wind, and tide information and are also available for review in the Jacksonville District Office or from the

named agencies:

a. East Coast of North and South America Tide Tables, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National coastline of North and South America, including locations in the vicinity of the project. It also provides mean and spring tide ranges and tide levels. Some astronomical data is also included, such as time of sunrise, sunset, moon rise, and moon set. This publication is available through NOAA.

b. National Ocean Service Center for Operational Oceanographic Products and Service Tide Predictions. Provides daily tidal predictions at locations along the coastline of North America, including locations in the vicinity of the project. It also provides mean and spring tide ranges and tide levels. Some astronomical data is also included, such as the moon phase calendar. This publication is available through NOAA at http://www.co-ops.nos.noaa.gov/tp4days.html.

c. United States Coast Pilot, Atlantic Coast, Gulf of Mexico, Puerto Rico, and Virgin Islands, published by NOAA. For sale by National Ocean Service and its agents. This publication supplements the navigational information shown on the nautical charts. It also provides miscellaneous meteorological data.

d. Atlantic Coast Hindcast Wave Information, Wave Information Studies of U.S. Coastlines, WIS Report 33, Waterways Experiment Station. This report presents wave hindcast summaries at various stations located along U.S. Atlantic shoreline. Available data includes wave height, period, and direction tables for the period 1976-1933, summary wave and wind roses, summary tables of mean wave heights by month and year, largest wave heights by month and year, statistical summary of wave data, a table of extreme wave events, and hurricanes. The publication is available through the Waterways Experiment Station. It is also available via the Coastal Engineering Research Center (CERC) Internet web site at http://bigfoot.wes.army.mil/c201.html. Contact d.jones@crec.wes.army.mil or 601-634-2069 for more information.

1.3.4 Transportation Facilities

1.3.4.1 Major Highways, Airports, Port Facilities, and Rail Access

a. New Pass. The nearest city, Sarasota, is served by U.S. Highway No. 41, CSX Railroad, and the Intracoastal Waterway. The area is served by State Road 789 which is connected by the John Ringling Causeway with Sarasota.

b. Gordon Pass. The nearest city, Naples, is served by U.S. Highway No. 41, and the Intracoastal Waterway. Keewaydin Island is only accessible by water.

1.3.4.2 Contractor Investigation

In addition to the information given in the contract drawings, the Contractor shall make his/her own investigation of available roads for transportation, load limits for bridges and roads, and other road conditions affecting the access to all sites, and transportation of materials and equipment to the site. The Contractor shall investigate the availability of railroad sidings, and shall make all arrangements for use

of any sidings for the delivery of any materials and equipment to be used on the work.

1.3.5 Maritime Traffic

Channel Traffic in the project area consists of commercial, pleasure, and small recreation vessels of all types and sizes which can be accommodated by existing depths.

1.3.6 Local Conditions - Water Stages and Tides

1.3.6.1 Water Fluctuations

The below stated water fluctuations are for information only and are not to be utilized in conjunction with any contract related hydrographic surveying. Reference should be made to the water level datums for surveying purposes as noted on the control drawings of the contract plans.

1.3.6.2 Water Levels

a. New Pass. Water levels in the project area are mainly affected by wind and tidal fluctuations of the Gulf of Mexico which are diurnal. The project area is also subject to storm surges from hurricanes, and tropical storms from June through November and to windy and/or rainy spells during any season of the year. The National Ocean Survey (NOS) tidal bench mark data are provided in the following table:

LONGBOAT KEY, SARASOTA BAY
BENCHMARK STATION 872 6089

LATITUDE: 27 degrees 20.4 minutes N
LONGITUDE: 82 degrees 35.4 minutes W
NOAA CHART: 11424 USGS QUAD: SARASOTA

Tidal data at LONGBOAT KEY, SARASOTA BAY are based on the following:

LENGTH OF SERIES	=	2 YEARS
TIME PERIOD	=	AUG 1973-JULY 1974 & OCT 1976-SEPT 1977
TIDAL EPOCH	=	1960-1978
CONTROL TIDE STATION	=	ST. PETERSBURG (872 6520)

Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL (06/25/1974)	=	4.59 FEET
MEAN HIGHER HIGH WATER (MHHW)	=	2.07 FEET
MEAN HIGH WATER (MHW)	=	1.75 FEET
MEAN TIDE LEVEL (MTL)	=	1.05 FEET
NATIONAL GEODETIC VERTICAL DATUM-1929 (NGVD)	=	0.63 FOOT
MEAN LOW WATER (MLW)	=	0.35 FOOT
MEAN LOWER LOW WATER (MLLW)	=	0.00 FOOT
LOWEST OBSERVED WATER LEVEL (04/05/1977)	=	-1.53 FEET

b. Gordon Pass. Water levels in the project area are mainly affected by wind and tidal fluctuations of the Gulf of Mexico which are diurnal. The project area is also subject to storm surges from hurricanes, and tropical storms from June through November and to windy and/or rainy spells during any season of the year. The National Ocean Survey (NOS) tidal bench mark data are provided in the following table:

KEEWAYDIN ISLAND
BENCHMARK STATION 872 5019

LATITUDE: 26 degrees 1.5 minutes N
LONGITUDE: 81 degrees 46.1 minutes W
NOAA CHART: 11430 USGS QUAD: NAPLES, SOUTH

Tidal data at NAPLES, GULF OF MEXICO are based on the following:

LENGTH OF SERIES	=	13 YEARS
TIME PERIOD	=	1966-1978
TIDAL EPOCH	=	1960-1978
CONTROL TIDE STATION	=	KEY WEST (872 4580)

Elevations of tidal datums referred to mean lower low water (MLLW) are as follows:

HIGHEST OBSERVED WATER LEVEL (12/21/1972)	=	6.14 FEET
MEAN HIGHER HIGH WATER (MHHW)	=	2.94 FEET
MEAN HIGH WATER (MHW)	=	2.70 FEET
MEAN TIDE LEVEL (MTL)	=	1.65 FEET
NATIONAL GEODETIC VERTICAL DATUM-1929 (NGVD)	=	0.63 FOOT
MEAN LOW WATER (MLW)	=	0.61 FOOT
MEAN LOWER LOW WATER (MLLW)	=	0.00 FOOT
LOWEST OBSERVED WATER LEVEL (03/15/1988)	=	-2.32 FEET

1.3.7 Subsurface Investigations

Refer to core boring logs and laboratory data appended to the end of this Section.

1.3.8 Obstruction of Channel

The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of any vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon completion of the work the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under the contract in navigable waters or on shore.

1.4 LAYOUT OF WORK

1.4.1 Established Monuments

The Government has established monuments, control data and elevations for the work site(s) as indicated on the contract drawings. Control monument descriptions are appended to the end of this Section.

1.4.2 Layout

From the monuments, control data and elevations established by the Government, the Contractor shall complete the layout of the work and shall

be responsible for all measurements that may be required for the execution of the work to the location and limit marks prescribed in the specifications or on the contract drawings, subject to such modifications as the Contracting Officer may require to meet changed conditions or as a result of necessary modifications to the contract work.

1.4.3 Survey

The Contractor shall furnish, at his/her own expense, such stakes, templates, platforms, equipment, tools and material, and all labor as may be required in laying out any part of the work from the monuments, control data and elevations established by the Government. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them, and if such marks are destroyed by the Contractor or through his negligence, prior to their authorized removal, they may be replaced by the Contracting Officer, at his/her discretion, and the expense of replacement will be deducted from any amounts due or to become due the Contractor. The Contracting Officer may require that work be suspended at any time when location and limit marks established by the Contractor are not reasonably adequate to permit checking of the work.

1.5 BRIDGE-TO-BRIDGE COMMUNICATION

In order that radio communication may be made with passing vessels, all dredges/marine equipment engaged in work under this contract shall be equipped with bridge-to-bridge radio telephone equipment. The radio equipment shall operate on a single channel very high frequency (VHF), FM, on a frequency of 156.55 MC per second with low power output having a communication range of approximately ten miles. The frequency has been approved by the Federal Communications Commission. Channels #13 and #16 must be monitored at all times.

1.6 CONTROL MONUMENT DESCRIPTIONS: NEW PASS AND GORDON PASS

See APPENDIX H at the end of this Section (~~5~~5 pages).

1.7 CORE BORING LOGS AND LABORATORY DATA

See APPENDIX J at the end of this Section (95 pages).

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

APPENDIX H

CONTROL MONUMENT DESCRIPTIONS

Monument ID: CO NAPLES RESET AD7841

Locality-Project	: NAPLES, FLA.	Monument Type	: DISK
Latitude	:	Longitude	:
X(E)	:	Y(N)	:
Zone	: FLE	Elevation	:
Horizontal Datum	: NAD-27	Vertical Datum	: NGVD-29
Order	: GPS	Linear Units	: FEET
State	: FL	Date Set	: 1984
Monument Set By	: NGS	County	: COLLIER
Date Added	: 020612	Date Changed	: 020612

Recovered By :

Company	(1)	(2)
Person	(1)	(2)
Date	(1)	(2)
Condition	(1)	(2)

01000-H1

LOCATEDIN DOWNTOWN NAPLES, COLLIER COUNTY, FLORIDA AT THE GRAND CENTRAL STATION MALL.

TO REACH THE STATION FROM THE JUNCTION OF 5TH AVENUE SOUTH AND 9TH STREET NORTH, GO EAST ON 5TH AVENUE SOUTH FOR 0.25 MILES TO GOODLETTE ROAD ON LEFT, TURN LEFT AND GO NORTH ON GOODLETTE ROAD FOR 0.15 MILES TO ENTRANCE TO GRAND CENTRAL STATION MALL ON LEFT AND STATION LOCATION.

MARK IS LOCATED 74.02 FEET WEST OF THE CENTER OF GOODLETTE ROAD, 15.98 FEET NORTHEAST OF THE EAST LEG OF GRAND CENTRAL STATION MALL SIGN, 40.49 FEET NORTH OF THE SOUTHSIDE OF ENTRANCE ROAD TO MALL 16.99 SOUTH OF THE NORTH EDGE OF ENTRANCE ROAD TO MALL 10.99 NORTH OF THE PROJECTED CENTER OF MEDIAN TO WEST.

MARK IS A STANDARD NGS DISK STAMPED "NAPLES 1934 1984" SET INTO THE TOP OF A ROUND CONCRETE MONUMENT 12 INCHES DIAMETER FLUSH WIRTH THE GROUND.

Monument ID: CO NBH 083

Locality-Project	: GORDON PASS	Monument Type	: DISK
Latitude	: 0° 0' 0.00000"	Longitude	: 0° 0' 0.00000"
X(E)	:	Y(N)	:
Zone	: FLE	Elevation	:
Horizontal Datum	: NAD-27	Vertical Datum	: NGVD-29
Order	: THIRD	Linear Units	: FEET
State	: FL	Date Set	: 1991
Monument Set By	: USACOE	County	: COLLIER
Date Added	: 911025	Date Changed	: 020612

Recovered By :

Company	(1)	(2)
Person	(1)	(2)
Date	(1)	(2)
Condition	(1)	(2)

01000-H2

FROM THE POST OFFICE IN NAPLES, PROCEED WESTERLY ALONG 3RD AVENUE SOUTH FOR 0.6 MILE TO GORDON DRIVE, THENCE GO SOUTHERLY ALONG DRIVE FOR 3.2 MILES TO A RESIDENCE AT 4550 GORDON DRIVE, THENCE GO WESTERLY TO THE GULF OF MEXICO.

THE STATION LIES AT THE NORTH PROPERTY LINE OF RESIDENCE AT 4550 GORDON DRIVE ON SEA.

MARK IS A U.S.A.C.O.E. DISK SET IN CONCRETE SEA WALL, STAMPED: "NBH 83, 1991".

Monument ID: SA EDGE

Locality-Project	: NEW PASS	Monument Type	: DISK
Latitude	: 0° 0' 0.00000"	Longitude	: 0° 0' 0.00000"
X(E)	:	Y(N)	:
Zone	: FLW	Elevation	:
Horizontal Datum	: NAD-27	Vertical Datum	: NGVD-29
Order	: THIRD	Linear Units	: FEET
State	: FL	Date Set	: 1989
Monument Set By	: USACOE	County	: SARASOTA
Date Added	: 891109	Date Changed	: 020612

Recovered By :

Company	(1) SEA SYS	(2) MAPTECH
Person	(1) STURGEON	(2) CHAMBLISS
Date	(1) 3/94	(2) 1/95
Condition	(1) GOOD	(2) GOOD

01000-E3

LOCATED AT THE SOUTH END OF LONGBOAT KEY, SARASOTA COUNTY, FLORIDA.

TO REACH FROM THE NORTH END OF BRIDGE OVER NEWPASS, G0 WEST TO CONCRETE SEAWALL AND STATION LOCATION.

STATION IS LOCATED ON CONCRETE SEAWALL 18.5 FT. NORTHWEST OF P.I. OF OLD BRIDGE ABUTMENT AND SEAWALL; 5.6 FT. NORTHWEST OF 10 INCH DIAMETER PALM TREE AND 7.7 FT. SOUTH OF A 10 INCH DIAMETER PALM TREE.

MARK IS A STANDARD U.S. ARMY CORPS OF ENGINEERS BRONZE DISK SET FLUSH IN TOP OF CONCRETE SEAWALL AND STAMPED: "EDGE, 10-24-89, 1989, JAX FLA".

Monument ID: SA IWSA 0096

Locality-Project	: NEW PASS	Monument Type	: DISK
Latitude	: 0° 0' 0.00000"	Longitude	: 0° 0' 0.00000"
X(E)	:	Y(N)	:
Zone	: FLW	Elevation	:
Horizontal Datum	: NAD-27	Vertical Datum	: NGVD-29
Order	: GPS	Linear Units	: FEET
State	: FL	Date Set	: 1993
Monument Set By	: PYBRN/ODM	County	: SARASOTA
Date Added	: 930506	Date Changed	: 020815

Recovered By :

Company	(1) SEA SYS	(2) MAPTECH
Person	(1) STURGEON	(2) CHAMBLISS
Date	(1) 3/94	(2) 1/95
Condition	(1) GOOD	(2) GOOD

LOCATED IN SARASOTA, SARASOTA COUNTY, FLORIDA.

TO REACH FROM INTERSECTION OF U.S. HIGHWAY NO. 41 AND GULFSTREAM ROAD IN DOWNTOWN SARASOTA, GO NORTH ON U.S. HIGHWAY NO. 41, 0.6 MILE TO 10TH STREET, GO WEST ON 10TH STREET 0.1 MILE TO U.S. COAST GUARD AUXILIARY BUILDING AND STATION LOCATION.

STATION IS LOCATED ON EAST SHORE OF SARASOTA BAY AND SOUTH BANK OF BOAT SLIP. SET IN CORNER OF SEAWALL, 50 FEET WEST OF NORTHWEST CORNER OF COAST GUARD BUILDING.

MARK IS A STANDARD BRONZE USACOE DISK SET FLUSH IN TOP OF SEAWALL AND STAMPED: "IWSA-96, 1993, JAX, FL."

MONUMENT REPOSITIONED 9/97 WITH GPS.

OLD NAD-27 COORDINATES X = =

01000-H4 (Added Am #0002)

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01270

MEASUREMENT AND PAYMENT

-- End of Section Table of Contents --

SECTION 01270

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.1.1 Mobilization and Demobilization (Alternative I Line Item 0001AA or Alternative II Line Item 0007AA)

Payment will be made for costs associated with or incidental to mobilization and demobilization and establishment of initial project management and coordination. See Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION of Section 00700 CONTRACT CLAUSES and Section 01310 ADMINISTRATIVE PROCEDURES. No separate payment will be made for mobilization and demobilization for either Alternative I or Alternative II Options 1 through 5. The cost for any additional mobilization and demobilization for the Options in either Alternative I or Alternative II should be incorporated into the applicable unit price item for excavation.

1.1.2 Endangered and Threatened Species and Migratory Bird Monitoring (Alternative I Line Item 0001AE or Alternative II Line Item 0007AE)

Payment will be made for costs associated with or incidental to endangered and threatened species and migratory bird monitoring. See subparagraph "Protection of Fish and Wildlife Resources" of Section 01355 ENVIRONMENTAL PROTECTION. No separate payment will be made for this monitoring for either Alternative I or Alternative II Options 1 through 5. The cost for any additional monitoring for the Options in either Alternative I or Alternative II should be incorporated into the applicable unit price item for excavation.

1.1.3 Turbidity Monitoring (Alternative I Line Item 0001AF or Alternative II Line Item 0007AF)

Payment will be made for costs associated with or incidental to obtaining, analyzing, and reporting the results of monitoring for turbidity. See Section 01411 TURBIDITY AND DISPOSAL MONITORING. No separate payment will be made for this monitoring for either Alternative I or Alternative II Options 1 through 5. The cost for any additional monitoring for the Options in either Alternative I or Alternative II should be incorporated into the applicable unit price item for excavation.

1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.2.1 Excavation, Unclassified

a. New Pass Placed on Lido Key Between R-35.5 and R-38.5 (Alternative I Line Item 0001AB)

b. New Pass Placed on Lido Key Between R-35.5 and R-44 Including Grading Existing Beach to EL. +3.0' NGVD(Alternative II Line Item 0007AB)

c. New Pass Placed on Longboat Key (Alternative I Line Items 0001AC, Option 1 0002AA, Option 2 0003AA, Option 3 0004AA; or, Alternative II Line Items 0007AC, Option 1 0008AA, Option 2 0009AA, Option 3 0010AA)

d. Gordon Pass Placed on Keewaydin Key (Alternative I Line Items 0001AD, Option 4 0005AA, Option 5 0006AA; or, Alternative II Line Items 0007AD, Option 4 0011AA, Option 5 0012AA)

1.2.1.1 Payment

a. Payment will be made for costs associated with or incidental to excavation, transportation, and disposal of materials; providing and maintaining access to the work site(s) and disposal area(s); noise control; Contractor-furnished disposal area(s) and disposition of excess dredged material and unsuitable materials; and, monitoring sea turtles. See Sections 02325 DREDGING and 01355 ENVIRONMENTAL PROTECTION.

b. Insofar as consistent with the paragraph CONTINUITY OF WORK of Section 00800 SPECIAL REQUIREMENTS, monthly partial payments will be based on approximate quantities determined by soundings or sweepings performed by the Contractor behind the dredge. The term "area designated by the Contracting Officer" as used in the CONTINUITY OF WORK paragraph, is defined as "acceptance section".

c. Soundings for payment purposes shall be made by the Government at the frequency listed in the Channel Survey Notes on the contract drawings.

1.2.1.2 Measurement

The total quantity of dredged material for which payment will be made will be the computed quantity between the ground surface or bottom grade as determined by a survey and the grade and slope of the theoretical cross sections indicated.

a. The maps and/or drawings already prepared (paragraph CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS of Section 00700 CONTRACT CLAUSES)

are believed to represent accurately average existing conditions, but the depths shown thereon may be verified and corrected by soundings taken before dredging. Determination of quantities removed and the deductions made therefrom to determine quantities by in-place measurement to be paid for in the area specified, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

b. The total amount of material removed, and to be paid for under the contract, will be measured by the cubic yard in place. The volume computed shall be between the bottom surface shown by soundings taken within 1 week before dredging and the bottom surface shown by the soundings taken within 3 weeks after the work specified in each acceptance section indicated on the drawings has been completed. The Contractor shall give 1 week advance notice, in writing, to the Contracting Officer of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section. The quantity shall include the volume within the limits of the side slopes described in subparagraph "Side Slopes" of paragraph REQUIRED DEPTH, ALLOWABLE OVERDEPTH, AND SIDE SLOPES of Section 02325 DREDGING, less any deductions that may be required for misplaced material described in subparagraph "Misplaced Materials" of paragraph DISPOSAL OF EXCAVATED MATERIAL of Section 02325 DREDGING.

1.2.1.3 Unit of Measure

Cubic yard.

1.2.2 Beach Tilling (Alternative I Line Item 0001AG or Alternative II Line Item 0007AG)

1.2.2.1 Payment

Payment will be made for costs associated with or incidental to beach tilling, which includes performing the required final grading and dressing as described in paragraph DISPOSAL OF EXCAVATED MATERIAL of Section 02325 DREDGING. Also, refer to subparagraph "Beach Placement Restrictions" of Section 01355 ENVIRONMENTAL PROTECTION. No separate payment will be made for beach tilling for either Alternative I or Alternative II Options 1 through 5 or for grading Disposal Area "B" (Alternative II Options 1 through 3). The cost for any additional beach tilling and additionally grading of beach Disposal Area "B" to EL +3.0' NGVD for the Options in either Alternative I or Alternative II should be incorporated into the applicable unit price item for excavation.

1.2.2.2 Unit of Measure

Acre.

1.2.3 Sea Turtle Trawling and Relocation (Hopper Dredge Only) (Alternative I Line Item 0001AH or Alternative II Line Item 0007AH)

1.2.3.1 Payment

Should sea turtle trawling and relocation be necessary according to the conditions set forth in subparagraph "Sea Turtle Trawling and Relocation (For Hopper Dredges Only) of Section 01355 ENVIRONMENTAL PROTECTION, payment will be made for the associated costs. No payment will be made for this line item unless a hopper dredge is used. No separate payment will be

made for sea turtle trawling and relocation for either Alternative I or Alternative II Options 1 through 5. The cost for any sea turtle trawling and relocation for the Options in either Alternative I or Alternative II should be incorporated into the applicable unit price item for excavation.

1.2.3.2 Unit of Measure

Day.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION: Maint. Dredging, New Pass & Gordon Pass

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY						REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	
		01310	SD-01 Preconstruction Submittals																
			Standard Form 100																
			List of Subcontractors																
			Signature Authority																
			Drug-Free Work Place Record																
		01321	SD-01 Preconstruction Submittals																
			Construction Schedule		G	COR													
		01330	SD-01 Preconstruction Submittals																
			Submittal Register		G	COR													
		01355	SD-01 Preconstruction Submittals																
			Environmental Protection Plan		G	PD													
			SD-02 Shop Drawings																
			Turtle Deflector Device		G	COR													
			SD-07 Certificates																
			Sea Turtle Trawling and																
			Relocation (For Hopper Dredges																
			Only) Permit																
			SD-11 Closeout Submittals																
			Logs/Final Summary Report																
			Project Environmental Summary																
			Sheet																
			Logs/Summary of Bird Nesting																
			Monitoring																
			Hopper Dredge(s) Recording																
			Chart(s)																
		01411	SD-03 Product Data																

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION: Maint. Dredging, New Pass & Gordon Pass

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01411	Calibration Standard															
			SD-06 Test Reports															
			Turbidity Monitoring															
			FIO															
		01452	SD-01 Preconstruction Submittals															
			Quality Control Plan		G	COR												
			Personnel Qualifications		G	COR												
			Letter of Authority															
		01500	SD-01 Preconstruction Submittals															
			Mobilization/Demobilization Plan															
			Security Plan															
			SD-02 Shop Drawings															
			Site Layout															
		01525	SD-01 Preconstruction Submittals															
			Accident Prevention Plan (APP)		G	COR												
			Activity Hazard Analyses (AHA)		G	COR												
			Employee Safety and Health															
			Indoctrination (ESHI) and Training															
			Plan															
			Hazard Communication Plan															
			Emergency Response Plan															
			Hurricane and Severe Storm Plan		G	COR												
			Dive Operations Plan		G	COR												
			Critical Lift Plan		G	COR												
			Confined Space Plan		G	COR												
			Spill Response Plan		G	COR												

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION: Maint. Dredging, New Pass & Gordon Pass

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY						REMARKS
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(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	
		01525	SD-07 Certificates																
			Qualifications		G	COR													
			Dredge Plant Inspection		G	COR													
			Checklists																
			Crane Equipment Records																
		01780	SD-02 Shop Drawings																
			As-Built Drawings	1.2.1	G	COR													
		02325	SD-01 Preconstruction Submittals																
			Notice of Intent to Dredge																
			Relocation of Navigation Aids																
			SD-07 Certificates																
			Equipment and Performance Data																
			Notification of Discovery of																
			Historical Period Shipwreck Sites																
			Notice of Need for Dredging																
			Survey																
			Daily/Monthly Report of																
			Operations																
			Notice of Misplaced Material																
			Declaration of Inspection																
			Stateside																

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01355

ENVIRONMENTAL PROTECTION

-- End of Section Table of Contents --

SECTION 01355

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 SCOPE

This Section covers prevention of environmental damage as the result of construction operations under this contract and for those measures set forth in other Technical Requirements of these specifications. For the purpose of this specification, environmental damage is defined as the presence of hazardous, physical, chemical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances; affect other species, biological communities, or ecosystems; or degrade the quality of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental damage requires consideration of land, water, and air, and includes management of visual aesthetics, noise, solid waste, radiant energy and radioactive materials, as well as other pollutants.

1.2 REFERENCES

1.2.1 Miscellaneous Environmental Laws And Regulations

There are numerous environmental laws and regulations. At the Federal level, the applicable laws and regulations include compliance with the Clean Water Act (CWA); Clean Air Act (CAA); Coastal Zone Management Act (CZMA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Endangered Species Act (ESA); Fish and Wildlife Coordination Act (FWCA); Marine Protection, Research, and Sanctuaries Act (MPRSA); Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA); National Environmental Policy Act (NEPA); National Historic Preservation Act (NHPA); National Pollution Discharge Elimination System (NPDES); Research and Sanctuaries Act; Native American Graves Protection and Repatriation Act (NAGPRA); Resource Conservation and Recovery Act (RCRA); Rivers and Harbors Act (R&H); Safe Drinking Water Act (SDWA); Toxic Substance Control Act (TSCA); Wild and Scenic Rivers Act (WSRA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); Code of Federal Regulations (CFRs); Executive Orders; and, Environmental Protection Agency (EPA) requirements. NEPA compliance measures specified in an Environmental Assessment (EA) or Environmental Impact Statements (EIS) are also applicable with regard to compliance.

1.2.2 Publication Reference(s)

The publication(s)listed below form(s) a part of this specification to the extent referenced. The publication(s) are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 385-1-1 (1996) Safety and Health Requirements Manual

EM 1110-1-1003 (1996) NAVSTAR Global Positioning System Surveying

1.3 QUALITY CONTROL

The Contractor shall establish and maintain quality control for environmental protection of all items set forth herein. The Contractor shall record on daily quality control reports or attachments thereto, any problems in complying with laws, regulations and ordinances, and corrective action taken.

1.4 PERMITS AND AUTHORIZATIONS

The Contractor shall obtain all needed permits or licenses. The Government will not obtain any permits for this project; see Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES. The Contractor shall be responsible for implementing the terms and requirements of the appropriate permits as needed and for payment of all fees.

In addition to the above, the Contractor shall comply with all requirements under the terms and conditions set out in the following permit(s) and authorization(s) obtained by the Corps of Engineers listed below. These permit(s) and authorization(s) are available for review by contacting the Jacksonville District, Operations and Technical Support Section at 904-232-2539.

1.4.1 New Pass

Florida Department of Environmental Protection Permit No. 0039755-001-JC; Effective Date: August 30, 2001; Expiration Date: August 30, 2011; and Permit Modification No. 0158095-00-JC dated April 24,2002.

1.4.2 New Pass

Florida Department of Environmental Protection Permit No. 0158095-001-TC, effective date 9/26/00 and expiration date 9/26/10, and modification No. 0158095-003 and No. 0158095-004.

1.4.3 Gordon Pass

Florida Department of Environmental Protection Permit No. (PERMIT IS PENDING); Effective Date: (PERMIT IS PENDING); Expiration Date: (PERMIT IS PENDING).

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environmental Protection Plan; G|PD

Within 20 calendar days after the date of Notice of Award, the Contractor shall submit an Environmental Protection Plan for review and acceptance by the Contracting Officer. The Government will

consider an interim plan for the first 30 days of operations. However, the Contractor shall furnish an acceptable final plan no later than 30 calendar days after receipt of Notice to Proceed. Acceptance of the Contractor's plan shall not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures. Acceptance of the plan is conditional and predicated on satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes to the Environmental Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. No physical work at the site shall begin prior to acceptance of the Contractor's plan or an interim plan covering the work to be performed. ~~The Environmental Protection Plan shall include but not be limited to the following:~~

The Contractor is advised that bird and turtle nest monitoring of the beach disposal areas will be performed by others. The Contractor shall coordinate all activities with the appropriate monitoring authorities. For Longboat Key, contact Mr. Dennis Daughters of the City of Sarasota at (941) 954-4180. For Keywaddin Island, contact Dr. Jon Staigler of the City of Naples at (239) 213-1030. The Environmental Protection Plan shall include but not be limited to the following:

a. A list of Federal, State, and local laws, regulations, and permits concerning environmental protection, pollution control, and abatement that are applicable to the Contractor's proposed operations and the requirements imposed by those laws, regulations, and permits.

b. Methods for protection of features to be preserved within authorized work areas. The Contractor shall prepare a listing of methods to protect resources needing protection, i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, historical, archeological, and cultural resources.

c. Procedures to be implemented to provide the required environmental protection and to comply with the applicable laws and regulations. The Contractor shall provide written assurance that immediate corrective action will be taken to correct pollution of the environment due to accident, natural causes, or failure to follow the procedures set out in accordance with the environmental protection plan.

d. A permit or license for and the location of the solid waste disposal area.

e. Drawings showing locations of any proposed temporary excavations or embankments for haul roads, stream crossing, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

f. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.

g. Traffic control plan.

h. Methods of protecting surface and ground water during construction activities.

i. Spill prevention. The Contractor shall specify all potentially hazardous substances to be used on the job site and intended actions to prevent accidental or intentional introduction of such materials into the air, ground, water, wetlands, or drainage areas. The plan shall specify the Contractor's provisions to be taken to meet Federal, State, and local laws and regulations regarding labeling, storage, removal, transport, and disposal of potentially hazardous substances.

j. Spill contingency plan for hazardous, toxic, or petroleum material.

k. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas.

l. A statement as to the person who shall be responsible for implementation of the Environmental Protection Plan. The Contractor personnel responsible shall report directly to the Contractor's top management and shall have the authority to act for the Contractor in all environmental protection matters.

m. Recycling and Waste Management Plan. Executive Order 12873 of 20 October 1993 requires a number of considerations in planning a project. Fallen trees should not be burned or buried. Mulching, composting, and other uses for trees should be considered. Also, recovery of metals at the job site, including aluminum cans, should be considered with proceeds to be retained by the Contractor. Non-Federal recycling and waste minimization efforts shall also be incorporated into this plan.

n. A Certification Letter must be signed acknowledging the Contractor has a copy of all permits applicable to the project and understands the conditions in the permit. The Certification Letter shall be attached to the Environmental Protection Plan. (A sample Certification Letter is appended to the end of this Section.)

o. Operational plan to achieve protection of sea turtles during hopper dredge(s) operation.

p. Steps to be taken so as not to impact migratory birds or induce their nesting.

SD-02 Shop Drawings

Turtle Deflector Device; G|COR

If the Contractor proposes to use a hopper dredge for this work, detail drawings shall be submitted showing the proposed device and its attachment to the Contractor's equipment. Contractor's drawings to be submitted shall include the approach angle for any and all depths to be dredged during this contract. A copy of the approved drawings and calculations shall be available on the vessel during the life of this contract. No dredging work shall be allowed to commence until approval of the turtle deflector device.

SD-07 Certificates

~~Bird Nesting Monitoring Qualifications; G|PD~~

~~Within 20 calendar days after the date of Notice of Award, the Contractor shall furnish to the Contracting Officer for approval, the qualifications of the bird monitor/observer. Appropriate qualifications for bird monitor/observer shall be a demonstrated ability to find and/or identify bird species, nesting behavior, eggs and nests, and habitat requirements. The Contractor shall consult with and coordinate all monitoring plans and activities with the selected bird monitor/observer.~~

Sea Turtle Trawling and Relocation (For Hopper Dredges Only) Permit

The Contractor shall submit a certified copy of National Marine Fishery Service (NMFS) permit for sea turtle trawling and relocation as well as a statement as to the person responsible for implementation of the NMFS permit.

SD-11 Closeout Submittals

Logs/Final Summary Report

Contractor shall submit as specified, logs and final summary report of sightings and incidents with endangered species.

Project Environmental Summary Sheet

Contractor shall submit within 30 days following completion of the project, a written report of the absence or occurrence of environmental incidents. In addition, for construction activities whose anticipated duration is more than one calendar year, the Contractor shall complete a sheet each May 31st (plus/minus 14 days).

Logs/Summary of Bird Nesting Monitoring

Contractor shall submit as specified, logs and summary of monitoring detailing nesting and nesting success.

Hopper Dredge(s) Recording Chart(s)

Contractor shall submit as specified, a copy of the hopper dredge(s) output recording chart(s) for each day's operation on a daily basis.

1.6 SUBCONTRACTORS

Assurance of compliance with this section by subcontractors shall be the responsibility of the Contractor.

1.7 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the aforementioned Federal, State, or local laws or regulations, permits and other elements of the Contractor's environmental protection plan. The Contractor shall, after receipt of such

notice, inform the Contracting Officer of proposed corrective action and take such action as may be approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspension.

Additionally, the Contractor shall notify the Contracting Officer, in writing, of the absence or occurrence of environmental incidents, as required on the Project Environmental Summary Sheet, copy appended to the end of this Section. (Refer to paragraph SUBMITTALS above.)

1.8 CONTRACTOR PERSONNEL QUALIFICATIONS IN POLLUTION CONTROL

The Contractor's personnel shall be qualified to perform all phases of environmental protection, including methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, and careful installation and monitoring of the project to ensure adequate and continuous environmental pollution control. Quality Control and supervisory personnel shall be thoroughly knowledgeable of Federal, State, and local laws, regulations, and permits as listed in the Environmental Protection Plan submitted by the Contractor. Quality Control personnel will be identified in the Quality Control Plan submitted in accordance with Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 PROTECTION OF ENVIRONMENTAL RESOURCES

For contract work, the Contractor shall comply with all applicable Federal, State, or local laws and regulations. The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected at least during the entire period of this contract. The Contractor shall confine his activities to areas defined by the drawings and specifications. Deviations from drawings or specifications (e.g., proposed alternate borrow areas, disposal areas, staging areas, and alternate access routes) could result in the need for the Government to reanalyze and re-approve the project from an environmental standpoint. Environmental protection shall be as stated in the following subparagraphs.

3.1.1 General Project Environmental Design and Installation Criteria

Some project sites have features that shall not be impacted in any way, including cultural, historic, or archeological features. At all sites, project plans should minimize disturbance to existing features at the site to the extent possible, including vegetative, topographic, and drainage pattern features. Wetland impacts (temporary access, detours, staging areas, and other work area impacts) to project sites should be avoided and may require separate permitting action. Any wetlands temporarily impacted shall have its soil restored upon project completion. Expansion of previously permitted project footprints may likewise require separate permitting action.

In all cases, the design and/or installation of project system shall provide for protection of the environment during handling, installing,

storing, utilizing, transporting, servicing, testing, refilling, transferring, pumping, processing, removing waste products, repairing and maintaining systems and their components. Necessary design protection shall also be considered that would prevent contamination of the environment from impacts to the system caused by storm water runoff and flooding. Retrofit of connected systems on project sites to modern environmental protection design standards shall also be considered.

In the event environmental protection measures fail, the Contractor shall implement procedures to control and correct environmental damage.

3.1.1.1 Sewage-Based Systems Environmental Design and Installation Criteria

In general, there shall be no waste or debris discharges of any kind for a project unless authorized by the Contracting Officer. This shall include the Contractor's providing sufficient temporary sanitary equipment and facilities for the project. The design and/or installation of temporary or permanent sewage systems shall ensure that waters will be free of effects of sewage discharges. Applicable Federal, State, or local codes and requirements regarding sewage shall be strictly adhered to in the design, such as those of the EPA and, in the case of the State, Chapter 62-620 (Wastewater Facilities) of the FAC. Best Management Practices from the applicable agencies shall also be adhered to in the design.

3.1.2 Protection of Land Resources

Prior to the beginning of any construction, the Contractor shall identify all land resources to be preserved or avoided within the Contractor's work area. Materials displaced into uncleared areas shall be removed. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without special permission from the Contracting Officer. The Contractor shall engage a qualified tree surgeon to perform all tree surgery. The Contractor shall be responsible to repair injuries to bark, trunk, branches, and roots of protected trees by dressing, cutting, and painting as specified for Class I Fine Pruning, of the National Arborist Association Pruning Standards for Shade Tree or as per State's Agricultural Extension Agency Guidelines, immediately as occurrences arise. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs.

3.1.2.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas that are not required to accomplish all work to be performed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. The Contractor shall protect from damage all existing trees designated to remain. Protection of tree roots shall be provided against noxious materials in solution caused by run-off or spillage. Fires shall be located outside the canopy of protected trees. No materials, trailers, or equipment shall be stored within the drip line of any protected tree. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The Contractor shall convey to his personnel the purpose of marking and/or protection of all necessary objects.

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the U.S. Department of Agriculture (USDA) regarding additional cleaning requirements that may be necessary.

3.1.2.2 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

a. Retardation and Control of Runoff: Runoff from the construction site or from storms shall be controlled, retarded, and diverted to protected drainage courses by means of diversion ditches, benches, and by any measures required by area wide plans approved under paragraph 208 of the Clean Water Act.

b. Erosion and Sedimentation Control Devices: The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as directed by the Contracting Officer. Temporary velocity dissipation devices shall be placed along drainage courses so as to provide for non-erosive flows. Temporary erosion and sediment control measures such as berms, dikes, drains, sediment traps, sedimentation basins, grassing, mulching, baled hay or straw, and silt fences shall be maintained until permanent drainage and erosion control facilities are completed and operative. For silt fences, the filter fabric is to be of nylon, polyester, propylene, or ethylene yarn of at least 50 lb/in strength and able to withstand a flow rate of at least 0.3 gal/ft sq/minute. The fabric should contain ultraviolet ray inhibitors and stabilizers and be a minimum of 45 inches in width. The toe of the fence shall be buried at least 8 inches deep to prevent undercutting and shall be secured to posts by suitable staples, tie wire, or hog rings. Posts shall have a cross section of at least 2"x4" and a minimum of 4 foot in length. Fence shall be overlapped to the next post if fabric joints are necessary.

c. Sediment Basins: Sediment from construction areas shall be trapped in temporary or permanent sediment basins in accordance with basin plans shown on the drawings. The basins shall accommodate the runoff of a local 24-hour storm. After each storm, the basins shall be pumped dry and accumulated sediment shall be removed as necessary to maintain basin effectiveness. Overflow shall be controlled by paved weir or by vertical overflow pipe, draining from the surface. The collected topsoil sediment shall be reused for fill on the construction site, and/or conserved (stockpiled) for use at another site(s). The Contractor shall institute effluent quality monitoring programs as required by State and local environmental agencies.

3.1.2.3 Contractor Facilities and Other Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made when approved by the Contracting Officer. Borrow areas shall be managed to minimize erosion and to prevent sediment from entering nearby watercourses, wetlands, or lakes. Spoil areas shall be managed and controlled to limit spoil intrusion into areas designated on the drawings and to prevent erosion of soil or sediment from entering nearby watercourses, wetlands, or lakes. Spoil areas shall be

developed in accordance with the grading plan indicated on the drawings. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from despoilment. If there is suspicion that sediment may be unsuitable for disposal at a specified location, the Contractor shall immediately take measures to contain the suspect sediment and notify the Contracting Officer.

3.1.2.4 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. All handling and disposal shall be conducted to prevent contamination. Solid waste materials shall be hauled to an approved solid waste disposal site designated by the Contracting Officer. The Contractor shall comply with Federal, State, and local regulations pertaining to the use of the solid waste disposal site.

3.1.2.5 Fuel, Oil, and Lubricants

Fuel, oil, and lubricants shall be managed so as to prevent spills and evaporation. To prevent spills, fuel dispensers shall have a 4-foot square, 16-gauge metal pan with borders banded up and welded at corners right below the bibb. Edges of the pans shall be 8-inch minimum in depth to ascertain that no contamination of the ground takes place. Pans shall be cleaned by an approved method immediately after every dispensing of fuel and wastes disposed of offsite in an approved area. Should any spilling of fuel occur, the Contractor shall immediately recover the contaminated ground and dispose of it offsite in an approved area. Petroleum waste generated shall be stored in marked corrosion-resistant containers and recycled or disposed of in accordance with 40 CFR 279, State, and local regulations.

3.1.2.6 Hazardous Waste

Hazardous wastes are defined in 40 CFR 261. The Contractor shall ensure that hazardous wastes are stored and disposed of in accordance with 40 CFR 261 and State and local regulations. The Contractor shall ensure that hazardous wastes are packed, labeled, and transported in accordance with 49 CFR 173 and State and local regulations.

3.1.2.7 Hazardous Materials

The Contractor shall ensure that hazardous materials are labeled, stored, and transported in accordance with 49 CFR 173, State, and local regulations.

3.1.2.8 Disposal of Other Materials

Other materials than previously discussed (Construction and Demolition, vegetative waste, etc.) shall be handled as directed.

3.1.3 Preservation and Recovery of Historic, Archeological, and Cultural Resources

3.1.3.1 Applicable Law

A number of Federal laws require protection of cultural resources. Two laws, in particular, can be potentially involved with dredging activities: (1) the National Historic Preservation Act, as amended; and, (2) the Abandoned Shipwreck Act.

3.1.3.2 Inadvertent Discoveries

If, during or other construction activities, the Contractor observes items that may have historic or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate Corps staff may be notified and a determination for what, if any, additional action is needed. Examples of historic, archeological and cultural resources are bones, remains, artifacts, shell, midden, charcoal or other deposits, rocks or coral, evidences of agricultural or other human activity, alignments, and constructed features. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from further removing, or otherwise damaging, such resources.

The possibility of encountering submerged cultural resources is inherent in dredging and snagging operations. Such findings could include shipwrecks, shipwreck debris fields (such as streamed engine parts), prehistoric watercraft (such as log "dugouts"), and other structural features intact or displaced. The materials may be deeply buried in sediment, resting in shallow sediments or above them, or protruding into water. Suspected cultural materials inadvertently gathered from a water-saturated context should be kept moist by re-immersion, spraying, or some other expedient means of wetting until the appropriate Corps staff provide further directives. No interviews or other contact with media shall occur without clear authorization from the Contracting Officer or the appropriate Corps representative.

3.1.3.3 Claims for Downtime due to Inadvertent Discoveries

Upon discovery and subsequent reporting of a possible inadvertent discovery of cultural resources, the Contractor shall seek to continue work well away from, or otherwise protectively avoiding, the area of interest, or in some other manner that strives to continue productive activities in keeping with the contract. Should an inadvertent discovery be of the nature that substantial impact(s) to the work schedule are evident, such delays shall be coordinated with the Contracting Officer.

3.1.4 Protection of Water Resources

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface, ground waters, and wetlands. The Contractor shall plan his operation and perform all work necessary to minimize adverse impact or violation of the water quality standard. Special management techniques as set out below shall be implemented to control water pollution by the listed construction activities which are included in this contract. The Contractor's construction methods shall protect wetland and surface water areas from damage due to mechanical grading, erosion, sedimentation and turbid discharges. There shall be no storage or stockpiling of equipment, tools, or materials within wetlands or along the shoreline within the littoral zone unless specifically authorized.

3.1.4.1 Washing and Curing Water

Waste waters directly derived from construction activities shall not be allowed to enter water areas. These waste waters shall be collected and placed in retention ponds where suspended materials can be settled out or the water evaporates so that pollutants are separated from the water. Analysis shall be performed and results reviewed and approved by Corps

staff before water in retention ponds is discharged.

3.1.4.2 Monitoring of Water Areas

Monitoring of water areas affected by construction activities shall be the responsibility of the Contractor. All water areas affected by construction activities shall be monitored by the Contractor.

3.1.4.3 Turbidity

The Contractor shall conduct his dredging and disposal operations in a manner to minimize turbidity and shall conform to all water quality standards as prescribed by Chapter 62-302, State of Florida, Department of Environmental Protection (FDEP). FDEP surface water quality standards can be obtained from the following web sites: http://www.dep.state.fl.us/ogc/documents/rules/shared/62-302.pdf and http://www.dep.state.fl.us/ogc/documents/rules/shared/62.302t.pdf.

3.1.4.4 Oil, Fuel, and Hazardous Substance Spill Prevention and Mitigation

The Contractor shall prevent oil, fuel, or other hazardous substances from entering the air, ground, drainage, local bodies of water, or wetlands. This shall be accomplished by design and procedural controls. In the event that a spill occurs despite the design and procedural controls, the following shall occur:

(1) Immediate action shall be taken to contain and cleanup any spill of oil, fuel or other hazardous substance.

(2) Spills shall be immediately reported to the Contracting Officer.

(3) Spill contingency planning shall be strictly in accordance with the criteria of 40 CFR, Part 109.

(4) To control the spread of any potential spill, absorbent materials shall be readily available and capable of absorbing the contents of the single largest tank.

(5) To control the spread of any potential spill, the Contractor shall provide a written certification of commitment of manpower, equipment, and materials required to expeditiously cleanup and dispose of spill materials.

a. Spill Preventive Systems: System design and installation requirements have been discussed at the beginning of this Section. Temporary or portable tanks shall conform to applicable Federal, State, and local codes and requirements and shall not be placed where they may be affected by storm, flooding, or washout. Diversionary structures for spills shall be put in place in advance where practical. Both spill preventive systems and any deviations from associated requirements must be approved by the Contracting Officer prior to implementation.

b. Liabilities: The Contractor shall be liable in the amounts established in 40 CFR, Part 113 when it can be shown that oil was discharged as a result of willful negligence or willful misconduct. The penalty for failure to report the discharge of oil shall be in accordance with the provision of 33 CFR, Part 153.

3.1.5 Protection of Fish and Wildlife Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection shall be listed in the Contractor's Environmental Protection Plan prior to the beginning of construction operation.

3.1.5.1 Endangered Species Protection

The Contractor shall instruct all personnel associated with the project of the potential presence of manatees and sea turtles in the area, and the need to avoid collisions with and harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees or sea turtles which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act. The Contractor shall be held responsible for any manatee or sea turtle harmed, harassed, or killed as a result of construction activities.

a. Siltation Barriers: If siltation barriers are used, they shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.

b. Special Operating Conditions

(1) All vessels associated with the project shall operate at "no wake/idle" speeds at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom, and vessels shall follow routes of deep water whenever possible. Boats used to transport personnel shall be shallow-draft vessels, preferably of the light-displacement category, where navigational safety permits. Mooring bumpers shall be placed on all barges, tugs, and similar large vessels wherever and whenever there is a potential for manatees to be crushed between two moored vessels. The bumpers shall provide a minimum stand-off distance of four feet.

(2) If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area.

c. Manatee Signs: Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading

"CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction. Sample Manatee Caution Signs are appended to the end of this Section.

d. Manatee Monitoring (Clamshell Only): During clamshell dredging operations, a dedicated observer shall monitor for the presence of manatees. If manatees are present, the observer shall document all activities with the use of a video camera with the capabilities of video taping at night. The video tape shall have date/time signature and record all manatee movements in the construction area and note any reactions to turbidity, sound, and light. The Contractor shall forward 3 copies to Chief, Environmental Branch, P.O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of completion of the dredging.

3.1.5.2 Endangered Species Observers (Hopper Dredge Only)

During dredging operations, an observer approved by the National Marine Fisheries Service (NMFS) for sea turtles, whales, and manatees shall be aboard to monitor for the presence of the species. During transit to and from the disposal area, the observer shall monitor from the bridge during daylight hours for the presence of whales, especially the right whale, during the period December through March. During dredging operations, the observer shall monitor the inflow screening for turtles and/or turtle parts.

a. Observation Sheets: The results of the monitoring shall be recorded on the appropriate observation sheet. An observation sheet shall be completed for each dredging cycle whether or not sea turtle or sea turtle parts are present. Sample observation sheets are appended to the end of this Section.

b. Endangered Species Observer(s): NMFS-approved firms shall provide and manage the endangered species observer(s). A list of acceptable firms can be obtained by contacting NMFS Chief of Office of Protective Species in St. Petersburg, Florida at 727-570-5312. The trained observer(s) shall require quarters on board the dredge.

3.1.5.3 Manatee and Sea Turtle Sighting Reports

Any collisions with a manatee or sea turtle or sighting of any injured or incapacitated manatees or sea turtles shall be reported immediately to the Corps of Engineers. The order of contact within the Corps of Engineers shall be as follows:

Order of Contact of Corps Personnel for Dredging
Contractor to Report Endangered Species Death or Injury

Title	Telephone Number Work Hours	After Hours
Corps, Inspector	On site	Lodging Location
Mr. Frank Mohr, Area Engineer, Gulf Coast Area Office (CESAJ-CO-G)	813-840-0824	To be Provided
Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-1010	To be Provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO-C)	904-232-1122	To be Provided
Mr. Gordon M. Butler, Jr., Chief, Construction-Operations Division (CESAJ-CO)	904-232-3765	To be Provided

A copy of the incidental take report shall be provided within 24 hours of the incident. The Contractor shall also immediately report any collision with and/or injury to a manatee to the Florida Marine Patrol "Manatee Hotline" 1-800-342-5367 as well as the U.S. Fish and Wildlife Service, Vero Beach Field Office 561-562-3909 for South Florida. If a stranded/injured/incapacitated whale is observed within the construction site, the Contractor is requested to immediately contact the NMFS Whale Stranding Network pager number at 305-862-2850.

3.1.5.4 Disposition of Turtles or Turtle Parts

Positively identified turtle parts shall be disposed of at the disposal site(s). Turtle parts which cannot be positively identified on board the dredge or barge(s) shall be preserved by the observer(s) for later identification. Observer(s) shall measure, weigh, tag, and release any uninjured turtles incidentally taken by the dredge. Observer(s) (or their authorized representative) shall transport, as soon as possible, any injured turtles to a rehabilitation facility such as Sea World at Orlando, Florida.

3.1.5.5 Report Submission

The Contractor shall maintain a log detailing all incidents, including sightings, collisions with, injuries, or killing of manatees or sea turtles occurring during the contract period. The data shall be recorded on forms provided by the Contracting Officer (sample forms are appended to the end of this Section). All data in original form shall be forwarded directly to Chief, Environmental Branch, P. O. Box 4970, Jacksonville, Florida, 32232-0019, within 10 days of collection and copies of the data shall be supplied to the Contracting Officer. Following project completion, a report summarizing the above incidents and sightings shall be submitted to the following:

Florida Fish and Wildlife Conservation Commission
Bureau of Protected Species Management
620 South Meridian Street
Tallahassee, Florida 32399-1600

Chief, Environmental Branch
U.S. Army Corps of Engineers (CESAJ-PD-E)

P.O. Box 4970
Jacksonville, Florida 32232-0019

Area Engineer, Gulf Coast Area Office
U.S Army Corps of Engineers (CESAJ-CO-G)
P.O. Box 19247
Tampa, Florida 33686-9247

U.S. Fish and Wildlife Service
P. O. Box 2676
Vero Beach, Florida 32961-2676

National Marine Fisheries Service
Protected Species Management Branch
9721 Executive Center Drive
St. Petersburg, Florida 33702

3.1.5.6 Hopper Dredge Equipment

Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors which are rigidly attached. No dredging shall be performed by a hopper dredge without a turtle deflector device that has been approved by the Contracting Officer. (Sample Turtle Deflector Design Details are appended to the end of this Section.)

a. Deflector Design:

(1) The leading vee-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle". (Information Only Note: The design "approach angle" or the angle of lower drag head pipe relative to the average sediment plane is very important to the proper operation of a deflector. If the lower drag head pipe angle in actual dredging conditions varies tremendously from the design angle of approach used in the development of the deflector, the 6" plowing effect does not occur. Therefore, every effort should be made to insure this design "approach angle" is maintained with the lower drag pipe.)

(2) If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

b. In Flow Basket Design:

(1) The Contractor shall install baskets or screening over the hopper inflow(s) with no greater than 4" x 4" openings. The method selected shall depend on the construction of the dredge used and

shall be approved by the Contracting Officer prior to commencement of dredging. The screening shall provide 100% screening of the hopper inflow(s). The screens and/or baskets shall remain in place throughout the performance of the work.

(2) The Contractor shall install and maintain floodlights suitable for illumination of the baskets or screening to allow the observer to safely monitor the hopper basket(s) during non-daylight hours or other periods of poor visibility. Safe access shall be provided to the inflow baskets or screens to allow the observer to inspect for turtles, turtle parts or damage.

c. Hopper Dredge Operation:

(1) The Contractor shall operate the hopper dredge to minimize the possibility of taking sea turtles and to comply with the requirements stated in the Incidental Take Statement provided by the National Marine Fisheries Service in their Biological Opinion.

(2) The turtle deflector device and inflow screens shall be maintained in operational condition for the entire dredging operation.

(3) When initiating dredging, suction through the drag heads shall be allowed just long enough to prime the pumps, then the drag heads must be placed firmly on the bottom. When lifting the drag heads from the bottom, suction through the drag heads shall be allowed just long enough to clear the lines, and then must cease. Pumping water through the drag heads shall cease while maneuvering or during travel to/from the disposal area. (Information Only Note: Optimal suction pipe densities and velocities occur when the deflector is operated properly. If the required dredging section includes compacted fine sands or stiff clays, a properly configured arrangement of teeth may enhance dredge efficiency which reduces total dredging hours and "turtle takes." The operation of a drag head with teeth must be monitored for each dredged section to insure that excessive material is not forced into the suction line. When excess high-density material enters the suction line, suction velocities drop to extremely low levels causing conditions for plugging of the suction pipe. Dredge operators should configure and operate their equipment to eliminate all low level suction velocities. Pipe plugging in the past was easily corrected, when low suction velocities occurred, by raising the drag head off the bottom until the suction velocities increased to an appropriate level. Pipe plugging cannot be corrected by raising the drag head off the bottom. Arrangements of teeth and/or the reconfiguration of teeth should be made during the dredging process to optimize the suction velocities.)

(4) Raising the drag head off the bottom to increase suction velocities is not acceptable. The primary adjustment for providing additional mixing water to the suction line should be through water ports. To insure that suction velocities do not drop below appropriate levels, the Contractor's personnel shall monitor production meters throughout the job and adjust primarily the number and opening sizes of water ports. Water port openings on top of the drag head or on raised stand pipes above the drag head shall be screened before they are utilized on the dredging project. If a dredge section includes sandy shoals on one end of a tract

line and mud sediments on the other end of the tract line, the Contractor shall adjust the equipment to eliminate drag head pick-ups to clear the suction line.

(5) Near the completion of each payment section, the Contractor shall perform sufficient surveys to accurately depict those portions of the acceptance section requiring cleanup. The Contractor shall keep the drag head buried a minimum of 6 inches in the sediment at all times. Although the over depth prism is not the required dredging prism, the Contractor shall achieve the required prism by removing the material from the allowable over depth prism.

(6) During turning operations the pumps must either be shut off or reduced in speed to the point where no suction velocity or vacuum exists.

(7) These operational procedures are intended to stress the importance of balancing the suction pipe densities and velocities in order to keep from taking sea turtles. The Contractor shall develop a written operational plan to minimize turtle takes and submit it as part of the Environmental Protection Plan.

(8) The Contractor must comply with all requirements of this specification and the Contractor's accepted Environmental Protection Plan. The contents of this specification and the Contractor's Environmental Protection Plan shall be shared with all applicable crew members of the hopper dredge.

3.1.5.7 Recording Charts for Hopper Dredge(s)

All hopper dredge(s) shall be equipped with recording devices for each drag head that capture real time, drag head elevation, slurry density, and at least two of the following: Pump(s) slurry velocity measured at the output side, pump(s) vacuum, and/or pump(s) RPM. The Contractor shall record continuous real time positioning of the dredge, by plot or electronic means, during the entire dredging cycle including dredging area and disposal area. Dredge location accuracy shall meet the requirements of the latest version of EM 1110-1-1003. A copy of the EM can be downloaded from the following web site: http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm. The recording system shall be capable of capturing data at variable intervals but with a frequency of not less than every 60 seconds. All data shall be time correlated to a 24 hour clock and the recording system shall include a method of daily evaluation of the data collected. Data shall be furnished to the Contracting Officer for each day's operation on a daily basis. A written plan of the method the Contractor intends to use in order to satisfy these requirements shall be included with the Contractor's Quality Control Plan.

3.1.5.8 Sea Turtle Trawling and Relocation (For Hopper Dredges Only)

a. Sea Turtle Risk Assessment and Relocation: A sea turtle risk assessment survey shall be conducted following the take of three sea turtles and continue until directed by the Contracting Officer. The results of each trawl shall be recorded on Sea Turtle Trawling Report appended to the end of this Section. A final report shall be prepared and submitted to the Contracting Officer prior to re-commencement of dredging summarizing the results of the survey (with all forms and

including total trawling times, number of trawls and number of captures). Any turtles captured during the survey shall be measured and tagged in accordance with standard biological sampling procedures with sampling data recorded on Sea Turtle Tagging and Relocation Report appended to the end of this Section. Any captured sea turtles shall be relocated south of the work area at least 3 miles from the location recorded on the Sea Turtle Tagging and Relocation Report form.

b. Sea Turtle Trawling Procedures: An approved sea turtle trawling and relocation supervisor shall provide researchers and nets to capture and relocate sea turtles, shall conduct Sea Turtle Risk Assessment Survey, and shall conduct any initiated sea turtle trawling. Turtles shall be captured with trawl nets to determine their relative abundance in the channel during dredging. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded using Sea Turtle Trawling Report appended to end of this Section. The trawler shall be equipped with two 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 10 to 12 hours per day or night. Trawling shall be conducted with the tidal flow using repetitive 15-30 minute (total time) tows in the channel. Tows shall be made in the center, green and red sides of the channel such that the total width of the channel bottom is sampled. Positions at the beginning and end of each tow shall be determined from GPS Positioning equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Refer to EM 1110-1-1003, paragraph 5.3 and Table 5-1, for acceptable GPS criteria.

c. Water Quality and Physical Measurements: Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Sea Turtle Trawling Report appended to the end of this Section. High and low tides shall be recorded.

d. Initiation of Trawling: Initiate trawling if three turtles are taken. The Contractor must initiate trawling and relocation activity in the dredging area within 8 hours of the occurrence of the take. Trawling shall continue until suspended by the Contracting Officer.

e. Approved Trawling Supervisor: Trawling shall be conducted under the supervision of a biologist approved by the NMFS. A letter of approval from NMFS shall be provided to the Contracting Officer prior to commencement of trawling.

f. Turtle Excluder Devices: Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) must be obtained from NMFS. Approval for capture and relocation of sea turtles must be obtained from the Florida Fish and Wildlife Conservation Commission (FF&WCC). Approvals must be submitted to the Contracting Officer prior to trawling.

g. Report Submission: Following completion of the project, a copy of the Contractor's log regarding sea turtles shall be forwarded to the Chief, Environmental Branch and the Area Engineer, Gulf Coast Area

Office within 10 working days.

3.1.5.9 Beach Placement Restrictions

a. Equipment Lighting During Sea Turtle Nesting Period March 1 to November 30: Direct lighting of the beach and near shore waters shall be limited to the immediate construction area and shall comply with safety requirements. Lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the waters surface and nesting beach while meeting all Coast Guard, EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area. Refer to Beach Lighting Schematic appended to the end of this Section.

b. Pipeline Placement: Any construction pipes placed parallel to the shoreline shall be placed as far landward as possible up to the vegetated dune line.

c. Beach Tilling: Till the fill area between the landward edge and the seaward edge of the top of the berm with equipment operated so as to penetrate and loosen beach sand (a) to a depth of 36 inches and (b) laterally without leaving unloosened compact sand between the adjacent paths of tines or penetrating part of the equipment. (Suitable equipment is Caterpillar D9L/No. 9 Adjustable Parallelogram Multishank Ripper, or equal.)

3.1.5.10 Escarpments

Visual surveys for escarpments along the project area shall be made immediately after completion of the beach nourishment project. Results of the surveys shall be submitted to the Contracting Officer. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet or more shall be mechanically leveled by the Contractor to the natural beach contour. If the project is completed during the main part of the nesting season, escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place.

3.1.5.11 Protection of Migratory Bird Species

The Contractor shall keep construction activities under surveillance, management, and control to prevent impacts to migratory birds and their nests. All construction personnel shall be advised that migratory birds are protected by the Florida Endangered and Threatened Species Act of 1977, Title XXVIII, Chapter 372.072, and the U.S. Fish and Wildlife Service pursuant to the Migratory Bird Treaty Act of 1918 and the Endangered and Threatened Species Act of 1982, as amended. The Contractor may be held responsible for harming or harassing the birds, their eggs or their nests as a result of the construction.

a. Monitoring of Construction Area: In order to meet these responsibilities, the Contractor shall conduct monitoring of the construction area beginning 1 April through 31 August, if construction activities occur during that period. Daily monitoring using the Daily Bird Monitoring Report shall be conducted during the dawn or dusk time

frames by a bird monitor approved by the Contracting Officer. (Caution shall be taken by the monitor to avoid disturbance to the nesting birds.) The Contractor shall maintain a daily log detailing monitoring and nesting activity (not all bird species are listed). Sample monitoring report and qualification sheet are appended to the end of this Section. Within 30 days after completion of construction, a summary of monitoring shall be submitted to the Corps detailing nesting and nesting success/failure including species, number of nests created, location, number of eggs, number of offspring generated during the project and reasons for nesting success or failure, if known.

b. Presence/Absence Survey: At least 3 visits must be made to each site during April-July. A 6-minute point count (variable circular plot) should be conducted between sunrise and 3 hours after or 1 hour prior to sunset. If breeding birds are encountered, nests shall be located and observed without disturbance to the nesting activity. Nests shall be marked and visited every 3-5 days to determine fate.

c. Nesting Activity Notification: Any nesting activity observed by the Contractor shall be reported immediately to the Contracting Officer who shall have sole authority for any work stoppages, creation of the buffer area, or restart of construction activities. In addition, the following personnel shall be notified:

Order of Contact of Corps Personnel
to Report Bird Nesting Activities

Title	Telephone Number Work Hours	After Hours
Corps, Inspector	On site	Lodging Location
Mr. Frank Mohr, Area Engineer, Gulf Coast Area Office (CESAJ-CO-G)	813-840-0824	To be Provided
Chief, Environmental Branch, Planning Division (CESAJ-PD-E)	904-232-1010	To be Provided
Mr. Charles McGehee, Chief, Construction Branch, Construction-Operations Division (CESAJ-CO-C)	904-232-1122	To be Provided
Mr. Gordon M. Butler, Jr., Chief, Construction-Operations Division (CESAJ-CO)	904-232-3765	To be Provided

d. Nesting Within Construction Area:

(1) Should nesting begin within the construction area, a temporary, 200-foot buffer shall be created around the nests and marked to avoid entry (the Contracting Officer will provide signs). The area shall be left undisturbed until nesting is completed or terminated, and the chicks fledge. The decision to allow construction in a former nesting site will be determined by the Contracting Officer in consultation with the U.S. Fish and Wildlife Service and the FF&WCC. Access to the nesting sites by humans (except limited access when accompanied by the bird monitor or Contracting Officer), equipment or pets under control of the Contractor is prohibited.

(2) If nesting occurs within the construction area, a bulletin board shall be placed and maintained by the Contractor in the contracting shed with the location map of the construction site

showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE FEDERAL MIGRATORY BIRD TREATY ACT".

(3) Birds will find the top of the dike or the flat interior desirable nesting habitat. If construction activity ceases for any period of time, nesting may occur before work can resume. Any stoppage of activity could induce nesting, subsequently, construction could be altered or stopped to avoid impacting the birds unless the State of Florida and the U.S. Fish and Wildlife Service authorizes the interruption of nesting and/or destruction of the eggs. (NOTE: This authorization is highly unlikely.) Areas which are potentially suitable for nesting can be altered to make the area undesirable. One approved method is the placement of stakes at 10- to 15-foot intervals and tie flagging between the stakes in a web fashion. This may dissuade bird nesting until construction can be resumed. In addition, the disposal area basin can be flooded prior to the beginning of nesting season to the elevation required for displacement from the disposal of dredged material in order to make the basin undesirable for bird nesting.

e. Bird Monitoring Qualifications: The Contractor's Environmental Protection Plan shall contain the qualifications of the bird monitor and the steps to be taken to construct the project in such a manner as not to impact migratory birds or induce their nesting. The qualifications of the bird monitor are a demonstrated ability to identify bird species, general and nesting behavior characteristics, nests and eggs, and a knowledge of habitat requirements. In addition, references must be provided to verify non-educational experience.

f. Work Delay: Delays in work due to the fault of negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

3.1.6 Seagrass Protection Measures

a. The Contractor shall instruct all personnel associated with the project of the presence of seagrasses, especially the Federally-listed threatened Johnson's Seagrass (Halophlia johnsonii), and the need to avoid contact with seagrasses.

b. All construction personnel shall be advised that there are civil and criminal penalties for harming or destroying seagrasses, especially Johnson's Seagrass which is protected under the Endangered Species Act of 1973, as amended. The Contractor may be held responsible for any seagrasses harmed or destroyed due to construction activities.

c. The Contractor shall not anchor, place pipeline, or stage equipment in a manner that will cause any damage to seagrasses or hardbottoms. Anchoring, placing pipeline, or staging equipment shall avoid these sensitive areas. If such activities cannot be done without affecting these sensitive areas, the activities shall cease and the Contracting Officer and Chief, Environmental Branch (904-232-1010) shall be immediately notified (no later than the morning following the next working day if the incident occurs after normal working hours).

Any actual or potential incident involving damage to, or disturbance of, seagrasses or hardbottoms shall be reported.

3.1.7 Protection of Air Resources

The Contractor shall keep construction activities under surveillance, management, and control to minimize pollution of air resources. All activities, equipment, processes and work operated or performed by the Contractor in accomplishing the specified construction shall be in strict accordance with the applicable air pollution standards of the State of Florida (Florida Statute, Chapter 403 and others and Chapters 200 series of the FAC) and all Federal emission and performance laws and standards, including the U.S. Environmental Protection Agency's Ambient Air Quality Standards. Information regarding Florida Statutes can be obtained from the following web sites:
http://www.dep.state.fl.us/ogc/documents/statutes/text/403.doc;
http://www.dep.state.fl.us/ogc/documents/rules/aiur/62-213.doc; and,
http://www.dep.state.fl.us/ogc/documents/rules/mainrule.htm.

3.1.7.1 Particulates

Particulates, such as dust, shall be controlled at all times, including weekends, holidays, and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and work areas within or outside the project boundaries free from particulates that would cause air pollution standards to be exceeded or that would cause a hazard or nuisance. The Contractor shall have the necessary equipment and approved methods to control particulates as the work proceeds and before a problem develops.

3.1.7.2 Burning

All burning shall be subject to State and local requirements, including requirements for burn permits and bans during certain conditions such as droughts.

3.1.7.3 Odors

Odors shall be controlled at all times for all construction activities.

3.1.8 Protection of Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize damage to the environment by noise.

3.2 POSTCONSTRUCTION CLEANUP

The Contractor shall clean up any area(s) used for construction.

3.3 PRESERVATION AND RESTORATION OF LANDSCAPE AND MARINE VEGETATION DAMAGES

The Contractor shall restore all landscape features and marine vegetation damaged or destroyed during construction operations outside the limits of the approved work areas. Such restoration shall be a part of the Environmental Protection Plan as defined in subparagraph "Environmental Protection Plan" of paragraph SUBMITTALS above. This work shall be accomplished at the Contractor's expense.

3.4 MAINTENANCE OF POLLUTION CONTROL FACILITIES

The Contractor shall maintain all constructed facilities and pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.5 SAMPLE - MANATEE CAUTION SIGNS

See APPENDIX A at the end of this Section (2 pages).

3.6 SAMPLE - DAILY MANATEE REPORTING LOG

See APPENDIX B at the end of this Section (1 page).

3.7 SAMPLE - HOPPER DREDGE REPORTING LOG--TURTLE OBSERVER NOTES

See APPENDIX C at the end of this Section (1 page).

3.8 SAMPLE - INCIDENT REPORT OF SEA TURTLE MORTALITY AND DREDGING ACTIVITIES

See APPENDIX D at the end of this Section (1 page).

3.9 BEACH LIGHTING SCHEMATIC

See APPENDIX F at the end of this Section (1 page).

3.10 CONCEPTUAL TURTLE DEFLECTOR DESIGN DETAILS

See APPENDIX G at the end of this Section (2 pages).

3.11 SEA TURTLE TRAWLING REPORT

See APPENDIX H at the end of this Section (1 page).

3.12 SEA TURTLE TAGGING AND RELOCATION REPORT

See APPENDIX J at the end of this Section (1 page).

3.13 TURTLE TRAWEL NETS SPECIFICATIONS

See APPENDIX K at the end of this Section (1 page).

3.14 DAILY BIRD MONITORING REPORT

See APPENDIX L at the end of this Section (1 page).

3.15 SAMPLE - BIRD MONITOR QUALIFICATION SHEET

See APPENDIX M at the end of this Section (1 page).

3.16 PROJECT ENVIRONMENTAL SUMMARY SHEET

See APPENDIX N at the end of this Section (2 pages).

3.17 CERTIFICATION LETTER ACKNOWLEDGING ALL PERMITS ARE ON FILE

See APPENDIX P at the end of this Section (1 page).

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SECTION 01411

TURBIDITY AND DISPOSAL MONITORING

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SECTION 01411

TURBIDITY AND DISPOSAL MONITORING

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all work required to obtain, analyze, and report the results of turbidity and disposal monitoring.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-03 Product Data

Calibration Standard

The Contractor shall furnish to the Contracting Officer a copy of the operating instructions and standards used in calibrating equipment used in collecting samples for turbidity.

SD-06 Test Reports

Turbidity Monitoring; FIO

All required turbidity test reports shall be submitted (preferably by electronic mail) to the Contracting Officer, the Environmental Branch (CESAJ-PD-E), and the Florida Department of Environmental Protection (FDEP) within 24 hours after completion of each test.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 MONITORING REQUIREMENTS

3.1.1 General

Nearshore or inland water samples shall be obtained and analyzed for turbidity. Sampling shall be conducted in accordance with techniques described in the latest edition of "Standard Methods" published by the American Public Health Association (APHA), American Waterworks Association (AWWA), and Water Pollution Control Federation (WPCF), and other current techniques recognized by the scientific community and approved by the Jacksonville District, Corps of Engineers. Samples obtained for turbidity analysis shall be analyzed within 30 minutes of collection. Samples shall be taken with a sampler obtaining samples uncontaminated by water from any

other depth.

3.1.1.1 Turbidity Monitoring Equipment

Monitoring required for turbidity shall be measured in Nephelometric Turbidity Units (NTU) using a standard Nephelometer. Global Positioning System (GPS) is also required to record sampling stations.

3.1.2 Dredging and Disposal Locations

Routine monitoring shall occur at the following locations:

3.1.2.1 [Enter Appropriate Subpart Title Here]~~3.1.2.1 Station Descriptions~~ Dredging Location:

Frequency: Twice daily at least four (4) hours apart during all dredging operations.

Background: 300 meters from the suction head in the opposite direction of the prevailing current flow, clearly outside the influence of any turbid plume. Samples shall be collected from the surface and mid-depth.

Compliance: No more than 150 meters downcurrent from the dredge site or at the edge of any seagrass beds (which ever is closer), in the densest portion of any visible turbidity plume. Samples shall be collected from the surface and mid depth.

Beach Disposal Site: Longboat Key

Frequency: Twice daily at least four (4) hours apart during all dredging operations.

Background: At a point approximately 150 meters offshore and 300 meters up-current from the point where discharge water is re-entering waters of the State (discharge point), clearly outside of the influence of any turbid plume. Samples shall be collected at the surface and one meter above the bottom.

Compliance: At a point approximately 150 meters offshore and no more than 150 meters downcurrent from the discharge point within the densest portion of any visible turbidity plume. Samples shall be collected from the surface and 1 meter above the bottom.

Beach Nourishment Site: Lido Key and North Keewaydin Island

Frequency: Once every 6 hours during a beach disposal operation.

Background: At least 400 meters up-current from the point where discharge water is re-entering waters of the State (discharge point), clearly outside of the influence of any turbid plume. Samples shall be collected at the surface and one meter above the bottom, at the same distance offshore as the compliance station.

Compliance: Two (2) compliance stations are to be monitored. The first station is a distance of 2,300 meters down current from the point of discharge, or at the boundary of the Sarasota Bay Estuarine System OFW (whichever is closer to the point of discharge), in the densest portion of any visible turbidity plume, at the surface, and one meter above the bottom. Also, a compliance sample will be obtained directly offshore of the

discharge point at 300 meters from shore, in the densest portion of any visible plume, at the surface and at mid-depth.

~~a. Station 1 (Compliance Turbidity): No more than 150 meters downcurrent of the dredge or point of discharge and in the direction of any visible plume.~~

~~b. Station 2 (Background Turbidity): At least 300 meters upcurrent from the dredge or point of discharge and outside of any turbidity generated by the project.~~

~~3.1.2.2 Turbidity~~

~~Samples to be analyzed for turbidity shall be taken twice daily (one between the hours of 12 midnight and 12 noon and the other between 12 noon and 12 midnight) at least 4 hours apart at surface and mid-depth at the following locations. Additional sampling shall be performed when the Contracting Officer determines that there may be non-compliance with water quality standards.~~

~~a. Dredging Site Compliance at Station 1~~

~~b. Dredging Site Background at Station 2~~

~~c. Disposal Site Compliance at Station 1~~

~~d. Disposal Site Background at Station 2~~

3.2 TURBIDITY TESTS

3.2.1 Testing

The Contractor shall provide the Government with a certification, attesting to the accuracy of his testing equipment and procedure. The Contractor shall also provide the Contracting Officer with a duplicate of the standard used to calibrate his testing instrument as well as a complete set of operating instructions for the turbidity testing equipment. The Contractor and the Contracting Officer will use this standard throughout the project to maintain the calibration of the equipment. Whenever there is doubt as to the adequacy of the testing or validity of the results, the Contracting Officer may direct that additional tests be performed at no additional cost to the Government.

3.2.2 Reporting

The monitoring data shall be recorded on summary forms that contain the pertinent information in the following paragraphs. Example forms are appended to the end of this Section. Other data shall be submitted in the form supplied by the laboratory chosen to do the analysis. All data shall be forwarded (preferably electronically) to the Contracting Officer, Environmental Branch (CESAJ-PD-E), and FDEP within 7 days of collection. Electronic mail addresses of the Corps and FDEP personnel to receive these reports are provided below. Reports shall be provided in a common format such as Excel Spreadsheet (.xls) files, Word (.doc) files, and Web Graphics (Joint Photographic Group or .jpg) files.

NAME ORGANIZATION E-MAIL ADDRESS

Frank Mohr	USACE COR	frank.mohr@saj02.usace.army.mil
Carl Pettijohn	USACE COR	carl.h.pettijohn@saj02.usace.army.mil
Matt Miller	USACE COR	matthew.j.miller@saj02.usace.army.mil
Martin Seeling	FDEP	Martin.Seeling@dep.state.us.fl

3.2.2.1 Report Contents

a. Permit application number.
b. Dates of sampling and analysis.
c. A statement describing the methods used in collection, handling, storage, and quality control methods used in the analysis of the samples.
d. A map indicating the sampling location and plume configuration, if any.
e. A statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection, and accuracy of the data.
f. Results of the analyses.
g. A description of any factors influencing the dredging or disposal operation or the sampling program. Reports shall be furnished daily even when no sampling is conducted. When sampling is not conducted, a brief statement shall be given in the report explaining the reason for not conducting the sampling, such as "dredge not working due to mechanical problems" or "no sampling taken due to high seas".
h. State plane coordinates (x and y) shall be provided for all sampling stations along with the coordinates of the dredge and discharge pipe and the distance between the sampling station and dredge/discharge pipe for each sampling event.

3.2.2.2 Monitoring Reports

Monitoring reports shall also include the following information for each day that samples are taken:

a. Time of day and date samples were taken.
b. Depth of water body.
c. Depth of sample.
d. Antecedent weather conditions.
e. Tidal stage and direction of flow.
f. Dredge or disposal location (station location and map).
g. Water sample location.
h. Wind direction and velocity.

3.2.2.3 Notification

The compliance reports given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the compliance sites greater than 29 NTUs (northwest of the OFW) or 0 NTUs (at the boundary of the OFW) above the associated background turbidity levels, the Contractor ~~If turbidity exceeds background levels by more than 29 NTU, the Contractor~~shall immediately notify Chief, Environmental Branch at 904-232-1010 and the Contracting Officer, or on the morning of the following work day if it occurs after normal work hours. In addition, all dredging or disposal activity shall cease immediately and all measures to reduce turbidity shall be taken. Dredging or disposal shall not resume until corrective measures have been taken and turbidity has returned to acceptable levels as determined by proper testing described in subparagraph "Dredging and

Disposal Locations" above.

3.3 WORK DELAY

Delays in work due to the fault or negligence of the Contractor or the Contractor's failure to comply with this specification shall not be compensable. Any adjustments to the contract performance period or price that are required as a result of compliance with this section shall be made in accordance with the provisions of the Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES.

3.4 SAMPLE - TURBIDITY MONITORING TEST REPORT

See APPENDIX A at the end of this Section (2 pages).

3.5 TURBIDITY MONITORING WEEKLY REPORT

See APPENDIX B at the end of this Section (1 page).

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SECTION 01452

DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL

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SECTION 01452

DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL

PART 1 GENERAL

1.1 DEFINITIONS

Project Manager/Superintendent - highest level manager located onsite and responsible for dredging, disposal, berm construction and related activities, including but not limited to the following, production, quality control, safety, turbidity monitoring, endangered species monitoring and environmental protection.

Quality Control System Manager - a person assigned duties to manage Contractor's Quality Control (CQC) system. CQC System Manager shall have written delegated authority sufficient to stop work not in compliance with contract.

Safety Officer - person assigned responsibility for site safety management.

Endangered Species Monitor - person assigned for identifying regulatory protected wildlife and advising Contractor in modifying operations to protect identified species or damage to their habitat. Required to have acceptable qualifications and demonstrated ability. Refer to Section 01355 ENVIRONMENTAL PROTECTION

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING REGULATIONS (ER)

ER 1180-1-6 (1995) Construction Quality Management

Corps of Engineers publication(s) Internet location site is: http://www.usace.army.mil/inet/usace-docs/.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submittals shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Quality Control Plan; G|COR

Refer to paragraph QUALITY CONTROL PLAN below.

Personnel Qualifications; G|COR

Submit personnel qualifications for Project Manager/Superintendent, CQC System Manager, Safety Officer, Endangered Species Monitor, Professional Surveyor and Mapper, in resume form.

Letter of Authority

Letter to CQC System Manager signed by an authorized Contractor official which describes responsibilities and delegates sufficient authorities to perform functions of the CQC System Manager, including authority to stop work not in compliance with contract.

1.4 PAYMENT

No separate payment will be made for Contractor Quality Control. Include costs in Line Items contained on Line Items and Pricing Schedule.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL

The Contractor is responsible to plan and execute quality control in accordance with ER 1180-1-6 and establish and maintain an effective quality control system in compliance with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. Project Manager/Superintendent is responsible for quality of work and is subject to removal by the Contracting Officer for non-compliance with contract quality requirements. The Project Manager/Superintendent shall be on site at all times, except as otherwise approved by the Contracting Officer.

3.2 QUALITY CONTROL PLAN

3.2.1 General

Within 20 calendar days of Notice of Award, submit a written CQC Plan for review by Contracting Officer. CQC Plan submittal will be reviewed by Contracting Officer and discussed in detail at a Coordination Meeting (see paragraph COORDINATION MEETING below). CQC Plan shall identify organization chart, personnel, procedures, control methods, instructions, tests, records, and forms to be used. Contracting Officer may accept an "interim CQC Plan" under a "conditional acceptance" for first 30 calendar days of operation. Contractor shall furnish, not later than 30 calendar days after commencement of work, an acceptable overall CQC Plan.

3.2.1.1 CQC Plan Resubmittal

No construction will be allowed to start until an "interim CQC Plan" is "conditionally accepted". When an "interim CQC Plan" is "conditionally accepted", revise and resubmit overall project CQC Plan for Contracting Officer's acceptance. When Contractor is working under an "interim CQC Plan", until Contractor submits an acceptable final CQC Plan, Contracting Officer may retain funds from progress payments in accordance with Clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES. When no acceptable CQC Plan is resubmitted within a reasonable

time, as determined by Contracting Officer, Contracting Officer may order Contractor to stop work until such time as a CQC Plan is accepted. Such a directed stop work order shall not be considered a suspension of work under Clause SUSPENSION OF WORK of Section 00700 CONTRACT CLAUSES. No pay or construction period adjustments will be allowed as a result of a directed stop work order based on Contractor inability to plan quality control in a manner acceptable to Contracting Officer.

3.2.1.2 Failure

Failure to comply with above requirements within time prescribed will be considered a condition endangering contract performance and may be considered grounds for termination of contract in accordance with Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES.

3.2.2 Content of the CQC Plan

a. Describe Quality Control Organization: Include an organization chart with lines of authority and reporting. Project Manager/Superintendent may have dual roles as CQC System Manager or Safety Officer. See Section 01355 ENVIRONMENTAL PROTECTION for Endangered Species Monitor qualifications. Beach placement survey by Contractor requires qualified Professional Surveyor and Mapper registered in State of Florida.

b. Definable Features of Work: Provide a list to be agreed upon during the Coordination Meeting.

c. Qualifications: Names, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function. If included, see paragraph LIMITATIONS ON SUBSTITUTIONS FOR CERTAIN POSITIONS AND/OR SUBCONTRACTORS of Section 00800 SPECIAL REQUIREMENTS.

d. Letter of Authority: Copy of letter of authority to CQC System Manager. The CQC System Manager shall issue letters of direction to other quality control staff describing duties, authorities, and responsibilities.

e. Submittal Control: Procedures for scheduling, reviewing, certifying, and managing submittals. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.

f. Testing: Control, verification, turbidity monitoring, and field testing procedures. Provide a list of specific instruments and tests. Provide information including work being tested, test frequency, and identify who (Contractor, Subcontractor) is responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

g. Three Phase Control: Procedures to implement three phase quality control and inspection system. Procedures to plan and document preparatory, initial, and follow-up control phases.

h. Deficiency Tracking: Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish procedures to verify that deficiencies have been corrected and document correction.

i. Reports and Forms: Reporting procedures, including proposed

reporting formats and sample forms.

3.2.3 Acceptance of Plan

"Conditional acceptance" of the Contractor's interim CQC Plan is required prior to starting dredging or other construction activities. Contracting Officer's acceptance is conditional and is contingent on satisfactory performance during construction. The Contracting Officer reserves the right to require the Contractor to make changes in hisher CQC Plan and construction operations, including removal of personnel.

3.2.4 Notification of Changes

Notify Contracting Officer in writing a minimum of 7 calendar days prior to proposed personnel or CQC Plan procedure changes. Proposed changes are subject to Contracting Officer acceptance.

3.3 COORDINATION MEETING

Refer to Section 01310 ADMINISTRATIVE PROCEDURES. Contracting Officer will schedule a Coordination Meeting where Contractor personnel and Contracting Officer personnel will develop a mutual understanding of how Contractor's Quality Control works with Contracting Officer's Quality Assurance. CQC Plan will be discussed in detail, including forms for recording CQC operations, control activities, testing, and administration of the system for both onsite and offsite work. Contractor quality control for production, measurement and payment, safety, turbidity monitoring, plant and equipment location, monitoring, endangered species monitoring, environmental protection and supervision by Quality Control personnel will be discussed. Meeting minutes will be prepared by Contracting Officer and signed by Contractor and Contracting Officer. The minutes become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures requiring corrective action.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 General

CQC organization shall have a CQC System Manager and sufficient number of additional qualified personnel to ensure contract quality control for workmanship and materials, including safety and environmental protection compliance. Designate Safety Officer and qualified Endangered Species Monitor who shall serve as a member of CQC staff. Designate qualified surveyor for quantity measurement. Provide office space, computer hardware and software, filing systems and other resources as necessary to maintain an effective CQC organization. CQC organization shall be responsible to maintain documentation and records onsite, unless approved by the Contracting Officer.

3.4.2 CQC System Manager

Identify an individual, employed by Contractor, within onsite organization who shall be responsible for CQC management. CQC System Manager shall have authority to act in all CQC matters for the Contractor. CQC System Manager shall be an experienced dredging or construction person with a minimum of 5 years in similar work. Identify an alternate person to serve as CQC System Manager during actual CQC System Manager's absences. Designated alternate shall be a construction person with a minimum 5 years experience on similar

projects and shall meet CQM-C Training requirement below. CQC System Manager or a designated alternate shall be onsite during construction. CQC System Manager shall be assigned no other duties.

3.4.3 CQM-C Training Requirement

CQC System Manager shall have completed U.S. Army Corps of Engineers (COE) course "Construction Quality Management For Contractors" within the previous five years. A completion certificate from any Corps District or Naval Facilities Command is acceptable. In event proposed CQC System Manager has not completed CQM-C training, he or she will have 60 days after Notice of Award to do so. This course is periodically offered by Jacksonville District. Information regarding CQM-C course can be obtained from the following web site: http://www.saj.usace.army.mil/conops/construction or by contacting Chief, Quality Assurance Section at 904-232-1128.

3.4.4 Organizational Changes

When CQC staff changes are needed, revise CQC Organization Chart in CQC Plan to reflect changes and submit the changes to Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals shall be prepared and transmitted as specified in Section 01330 SUBMITTAL PROCEDURES. CQC organization shall certify submittals comply with contract requirements. Items delivered to Contracting Officer shall be controlled, packaged, transported and stored in a manner to prevent damage or loss.

3.6 CONTROL

Contractor's Quality Control is the means by which Contractor ensures construction, including that of subcontractors, complies with contract. Conduct Preparatory Phase and Initial Phase meetings for each definable feature of work (refer to Section 01310 ADMINISTRATIVE PROCEDURES). Perform three phases of control for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work. Notify Contracting Officer at least 24 hours in advance of beginning Preparatory Control Phase. Ensure proposed plans, activity hazard analyses, permits and submittals, are approved and copies are onsite. Conduct a Preparatory Phase meeting headed by CQC System Manager and attended by Superintendent, other CQC personnel, and foreman responsible for supervising workmanship for definable feature of work. Document Preparatory Phase actions using "Preparatory Phase Checklist" and meeting minutes prepared by CQC System Manager. Preparatory Phase checklist is appended to the end of this Section. Attach checklist and minutes to Contractor's Quality Control (CQC) report (sample CQC form appended to the end of this Section). Preparatory Phase actions include:

a. Review each paragraph of specifications. Make copies available for use by Contracting Officers personnel and Contractor CQC staff at Preparatory Phase meeting. Maintain copies available until final acceptance of the work.

b. Review of contract drawings.

c. Check to assure that plant and/or equipment have been inspected, tested, submitted, and approved.

d. Review provisions that have been made to provide required quality control inspection and testing.

e. Examine work area to assure required preliminary work is complete and in compliance with contract.

f. Review of activity hazard analysis to assure safety requirements are met.

g. Discuss procedures for controlling quality of work. Document construction tolerances and workmanship standards for that feature of work.

h. Check to ensure that portion of CQC Plan for new work to be performed has been accepted by Contracting Officer.

i. Check that previous work or acceptance sections required to start new work have been completed.

j. Review requirements under permits, environmental protection and protection of environmental species.

k. Discuss initial control phase (workmanship).

3.6.2 Initial Phase

Notify Contracting Officer at least 24 hours in advance of beginning the Initial Phase. Initial Phase is workmanship oriented and shall be accomplished at beginning physical work on each acceptance section. Following shall be accomplished:

a. Check preliminary work to ensure that complies with contract. Review minutes of preparatory meeting.

b. Verify adequacy of turbidity monitoring, survey control to ensure contract compliance. Verify required inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable contract workmanship standards and review allowable tolerances.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review activity analysis with each worker.

f. Initial phase shall be repeated for new crews working onsite and when contract workmanship quality standards are not being met.

3.6.3 Follow-up Phase

Follow-up Phase consists of daily checks performed to quality control

activities, including survey and testing, to provide continuous compliance with contract requirements. Record inspection and checking results in CQC documentation. Record both quality control activities, plant and equipment performance on Report of Operations. Report of Operations forms are appended to the end of Section 02325 DREDGING. Complete follow-up checks and inspections and correct deficiencies prior to starting acceptance sections which may be affected by deficient work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on same definable features of work when: quality of on-going work is unacceptable; there are changes in applicable CQC staff, production supervision, or work crews; work on a definable feature is resumed after a period of inactivity; or, when other problems develop.

3.7 TESTS/TESTING PROCEDURE

Perform specified tests and required monitoring instrumentation or tests to verify control measures are adequate and provide an end product conforming to contract. When requested, Contractor shall furnish Contracting Officer duplicate samples of test specimens for possible testing by Contracting Officer. The Contractor shall perform following activities and record and provide the following data:

a. Verify that testing standard or procedures comply with contract requirements.

b. Verify that facilities, instruments, and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of tests and monitoring instruments, both passing and failing, shall be recorded and reported for date taken. If approved by Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports or maintain adequate monitoring testing may result in nonpayment for related work performed.

3.8 COMPLETION INSPECTION

3.8.1 Pre-Final Inspection

Near completion of project Contracting Officer and Contractor will conduct a Pre-Final Inspection. In addition to completion of quantity survey, Contracting Officer will inspect for demobilization of temporary facilities and clean-up of staging areas used to ensure contract conformance. Contractor and Contracting Officer will inspect for final grading, tilling, and removal of escarpments. Contracting Officer will perform Pre-Final Inspection to verify work is complete and ready for Owner acceptance. Contracting Officer Pre-Final Inspection may result in additional work such

as beach tilling to be done. Contractor's CQC System Manager shall ensure items are corrected before notifying Contracting Officer so that a Final Inspection with the Customer can be scheduled. Any items noted on Pre-Final Inspection shall be corrected in a timely manner. Pre-Final Inspection and deficiency corrections shall be accomplished within project completion period.

3.8.2 Final Inspection

Final Inspection will be scheduled by Contracting Officer based upon results of Pre-Final Inspection. Notify Contracting Officer when ready for Final Inspection and Contracting Officer will schedule a Final Inspection with Owner or Sponsor to be performed within 14 working days. Provide assurance that work will be complete and acceptable by scheduled Final Inspection date. Contracting Officer will notify Owner or Sponsor to attend a Final Inspection. Contractor, Project Manager/Superintendent, and CQC System Manager shall attend the Final Inspection. In addition to Contracting Officer and Owner or Sponsor, persons from local government or other agencies may attend. Contractor's failure to have contract work completed for this inspection will be cause for Contracting Officer to bill the Contractor for Contracting Officer's additional inspection cost in accordance with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES.

3.9 DOCUMENTATION

Maintain current records as required in Sections 01355 ENVIRONMENTAL PROTECTION, 01411 TURBIDITY AND DISPOSAL MONITORING, and 02325 DREDGING. Document quality control activities and tests have been performed using Daily Report of Dredge Operations and Daily Quality Control Reports.

3.10 NOTIFICATION OF COMPLIANCE

Upon Contracting Officer's notification to Contractor of noncompliance with contract requirements, Contractor shall take immediate corrective action. Contractor personnel notified at work site is sufficient purpose of Contractor notification. If Contractor fails to comply within 1 calendar day, Contracting Officer may issue an order stopping all or part of work until satisfactory corrective action has been taken. Such stop orders shall not be made basis of Contractor claim for time extension or other damages to Contractor.

3.11 SAMPLE FORMS

Sample forms are appended at the end of this Section. The Contracting Officer's Representative will instruct the Contractor in the preparation of these forms during the Preconstruction Conference as specified in Section 01310 ADMINISTRATIVE PROCEDURES.

3.12 SAMPLE - PREPARATORY AND INITIAL PHASE CHECKLISTS

See APPENDIX A at the end of this Section (5 pages).

3.13 SAMPLE - CONTRACTOR'S QUALITY CONTROL (CQC) REPORT AND ACTIVITY HAZARD ANALYSIS

See APPENDIX B at the end of this Section (4 pages).

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01525

GENERAL SAFETY REQUIREMENTS

-- End of Section Table of Contents --

SECTION 01525

GENERAL SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

Section covers general site safety, accident prevention, accident reporting and Jacksonville District specific safety procedures, "Safety Pays" accident prevention incentive and recognition program.

1.1.1 Related Section

Refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES for safety signs and required bulletin board posters.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ASME INTERNATIONAL (ASME)

ASME B30.5	(1994) Mobile Cranes
ASME B30.22	(1993) Articulating Boom Cranes

CORPS OF ENGINEERS JACKSONVILLE PAMPHLET (CESAJP)

CESAJP 385-1-2	(1998) Safety Pays

CORPS OF ENGINEERS JACKSONVILLE REGULATION (CESAJR)

CESAJR 385-1-1	(1998) Safety and Occupational Health Program

ENGINEERING MANUALS (EM)

EM 385-1-1	(1996) Safety and Health Requirements Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(1995) Portable Fire Extinguishers
NFPA 70	(1999) National Electrical Code
NFPA 241	(1996) Safeguarding Construction, Alteration, and Demolition Operations

1.3 SAFETY MANUALS

EM 385-1-1, CESAJR 385-1-1, CESAJP 385-1-2 are available at

http://www.saj.usace.army.mil/conops/index.html. One copy of each will be provided to Contractor at a Preconstruction Conference (refer to Section 01310 ADMINISTRATIVE PROCEDURES. EM 385-1-1 is also at above web site in a Spanish version. Additional paper copies of EM 385-1-1 may be purchased for $30.00 using a check or money order as follows:

U.S. Government Printing Office (GPO)
Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
(GPO Stock Number for the manual is 0008-022-00-310-0)

or

order by credit card by calling 202-512-1800 (Master Card or Visa only)

Additional copies of CESAJR 385-1-1 and CESAJP 385-1-2 will be provided upon written request.

1.4 DEFINITIONS

Use definitions found in EM 385-1-1 and CESAJR 385-1-1 in submitted work plans.

Safety Officer - Qualified employee or competent person trained or having required experience in safety, occupational health and who is assigned overall responsibility to oversee on-site safety.

Safety Specialist - A person with specialized training or experience in safety and occupational health for specific items of work.

Qualified Person - One who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated his or her ability to solve or resolve problems related to the subject matter, the work or the project.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G|COR

Within 20 calendar days after Notice of Award, submit Accident Prevention Plan with applicable specific work plans required by paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of Appendix MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN of EM 385-1-1. Refer to paragraphs ACCIDENT PREVENTION PLAN (APP) and ACCIDENT PREVENTION below.

Activity Hazard Analyses (AHA); G|COR

Refer to paragraph ACTIVITY HAZARD ANALYSES (AHA) below.

Employee Safety and Health Indoctrination (ESHI) and Training Plan

Refer to paragraph SAFETY AND HEALTH INDOCTRINATION AND TRAINING below.

Hazard Communication Plan

Refer to paragraph HAZARD COMMUNICATION below.

Emergency Response Plan

Refer to paragraph EMERGENCY RESPONSE PLAN below.

Hurricane and Severe Storm Plan; G|COR

Refer to paragraph HURRICANE AND SEVERE STORM PLAN below.

Dive Operations Plan; G|COR

Refer to paragraphs DIVE PLAN, DIVING OPERATIONS, and DIVE OPERATIONS below.

Critical Lift Plan; G|COR

Submit a critical lift plan for each non-routine crane lift using format described in Section MACHINERY AND MECHANIZED EQUIPMENT of EM 385-1-1. Refer to paragraph CRITICAL LIFT PLANNING PROCEDURE AND POLICY below.

Confined Space Plan; G|COR

Refer to paragraphs CONFINED SPACE PLAN, CONFINED SPACE ENTRY, and WORKING IN CONFINED SPACES below.

Spill Response Plan; G|COR

Refer to paragraph SPILL RESPONSE PLAN below.

SD-07 Certificates

Qualifications; G|COR

Qualifications, and training certificates of safety personnel performing as safety specialists or assisting as Quality Control Staff. Includes first aid and CPR certifications. Refer to paragraph SAFETY OFFICER below.

Dredge Plant Inspection Checklists;G|COR

Checklists are located in CESAJR 385-1-1 as well as Jacksonville District web site shown in paragraph SAFETY MANUALS above.

Crane Equipment Records

Equipment inspections and maintenance records for cranes and other equipment used to lift material, equipment or support personnel. See ASME B30.5 and ASME B30.22. Refer to paragraph "Crane Notification" below.

1.6 ACCIDENT PREVENTION PLAN (APP)

Prepare APP using format in Appendix MINIMUM BASIC OUTLINE FOR ACCIDENT PREVENTION PLAN of EM 385-1-1. See Appendix ACCIDENT PREVENTION PROVISIONS FOR CONTRACTORS AND IDENTIFIED GOVERNMENT ACTIVITIES of CESAJR 385-1-1 for additional detail.

1.6.1 Contents

1. Signature Sheet
2. Background Information
3. Statement of Safety and Health Policies
4. Responsibilities, Lines of Authorities
5. Subcontractors and Suppliers
6. Training
7. Safety and Health Inspections
8. Safety and Health Expectations, Incentive Programs
9. Accident Reporting
10. Medical Support
11. Personal Protective Equipment
12. Supplemental ("Tabbed") Work Specific Plans required by EM 385-1-1
13. Supplemental Information on how Contractor will meet major applicable portions of EM 385-1-1

1.6.2 Tabbed APP Appendices

Submit tabbed appendices to Accident Prevention Plan including: Activity Hazard Analyses; Jacksonville District work plans and applicable supplementary specific plans; and, procedures listed in Appendix A, paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of EM 385-1-1 or CESAJR 385-1-1 Appendices.

1.6.2.1 Jacksonville District Required Work Plans

Jacksonville District Required Work Plans include:

Tab A - Activity Hazard Analysis Worksheets
Tab B - Employee Safety and Health Indoctrination and Training (See sample ESHI appended to the end of this Section)
Tab C - Hazard Communication
Tab D - Hurricane and Severe Storm Plan
Tab E - Emergency Response Plan
Tab F - Dive Plan
Tab G - Critical Lift Planning Procedure and Policy
Tab H - Confined Space
Tab I - Spill Response

1.6.2.2 Supplementary Plans in COE EM 385-1-1

Submit additional tabbed supplementary plans listed in Appendix A, paragraph PLANS (PROGRAMS, PROCEDURES) REQUIRED BY THE SAFETY MANUAL of EM 385-1-1 that are applicable to work as follows:

Temporary Facility Layout
Respiratory Protection
Health Hazard Control
Access and Haul Road Plan
Fire Prevention

1.7 ACTIVITY HAZARD ANALYSES (AHA)

Submit AHAs as a tabbed APP Appendix. See Figure ACTIVITY HAZARD ANALYSIS of EM 385-1-1 for sample form. Contractor can download activity hazard analysis form (MS Word file) at Jacksonville District's Construction web page, "QC Forms": http://www.saj.usace.army.mil/conops/construction/construction_forms.htm. Describe activity being performed; sequence of work; specific hazards anticipated; control measures to eliminate or reduce each hazard to acceptable levels; training requirements for all involved; and, competent person in charge of that work.

1.8 SAFETY AND HEALTH INDOCRTRINATION AND TRAINING

Submit Safety and Health Indoctrination and Training Plan as an APP tabbed appendix in accordance with paragraph INDOCTRINATION AND TRAINING of Section PROGRAM MANAGEMENT of EM 385-1-1. Provide a sample Employee Health and Safety Indoctrination (EHSI) Sheet.

1.8.1 New Employee Indoctrination

Describe new employee indoctrination and training required to be completed prior to an employee working on site. Document employee orientation. Keep records on file at project site or nearest office. Each employee shall sign an ESHI sheet. Sample form is appended to the end of this Section.

1.8.2 Visitor Briefing

Describe procedures for safety briefing site visitors. Train them on specific site hazards, site safety controls (i.e., hard-hat areas). Provide needed protective clothing (i.e., hard hats, reflective vest) and equipment (i.e., ear plugs, safety glasses) before they enter construction limits. Document visitor briefing with a file and visitor sign-in log on site. Report visitors in QC daily report.

1.9 HAZARD COMMUNICATION

Comply with OSHA 1910.1200 (the Hazard Communication Standard) and provide a Hazard Communication Plan describing implementation of the standard. Ensure site personnel including subcontractor employees, visitors, Contracting Officer personnel are informed about health and physical hazards associated with materials being used. Provide a hazardous materials inventory to Contracting Officer upon request. Ensure proper labeling of hazardous material containers. Ensure Material Safety Data Sheets are on site.

1.10 HURRICANE AND SEVERE STORM PLAN

Submit proposed procedures to be taken to prevent: injury; damage to materials, equipment, and completed construction; and, minimize delays due to severe weather. A sample format is provided below:

a. Address following conditions:

Hurricanes - Preparations prior to forecasted hurricane at 72 hours, 48 hours and 6 hours prior to predicted storm arrival.

Tornado/Water Spout - Actions to be taken for tornado ~~warning~~

watch and tornado warnings.

Thunderstorms/Squalls - Actions to be taken for high winds, lightning, heavy rainfall.

b. Include:

1. Provide detailed descriptions for actions to be taken.

2. The time intervals before storms when action will be taken for each type hazard.

3. List of equipment to be used on the project and its ability to handle adverse weather.

4. Distance from work area to a safe place and time required to move plant and equipment.

5. Method of securing equipment.

6. Methods of securing equipment not moved.

7. Plan of evacuation to include immediate reaction plans to be taken for all storm occurrences, particularly sudden storms.

8. List of equipment or vessels to be used to move plant and equipment to a safe harbor (tug boats, work boats, etc.); include name and horsepower of the equipment.

9. A statement that full time monitoring of NOAA marine weather broadcasts or other local commercial weather forecasting services will be the Contractor's primary source of information in the decision process to implement action under severe weather plan.

1.11 EMERGENCY RESPONSE PLAN

Describe planned response procedures and planned drills as applicable for medical, fire fighting, injury evacuation, wildfire, or man overboard. Submit certificates or wallet cards for designated First Aid and Coronary Pulmonary Resuscitation (CPR) responders. Provide planned communication methods to monitor employees working in remote areas. Provide sample posting sheets for local emergency responder phone numbers, reporting instructions, strip map to nearest medical treatment facility. Provide site sketch of location of first aid kits and fire extinguishers.

1.12 DIVE PLAN

See paragraph DIVE OPERATIONS below and Appendix CONTRACT DIVING OPERATIONS of CESAJR 385-1-1. Dive planning is required on all projects with work on, adjacent to or over water; see paragraph DIVING OPERATIONS below. The dive plan shall address all requirements of Section CONTRACT DIVING OPERATIONS of EM 385-1-1, and Appendix CONTRACT DIVING OPERATIONS of CESAJR 385-1-1.

1.13 CRITICAL LIFT PLANNING PROCEDURE AND POLICY

Critical lift is defined in paragraph "Equipment operation" of Section MACHINERY AND MECHANIZED EQUIPMENT of EM 385-1-1. In accordance with paragraph "Critical lift plans" of Section MACHINERY AND MECHANIZED EQUIPMENT of EM 385-1-1, each critical lift requires a load and lift

specific critical lift plan to be developed during preparatory phase. A critical lift plan is required whenever crane loads meet or exceed 75 percent of crane load capacity in any configuration. Describe who is responsible to identify such lifts, what procedures will be performed to prepare, review and approve critical lift plans, when critical lift plans will be submitted to Contracting Officer. Provide qualifications of persons identifying and overseeing critical lifts.

1.14 CONFINED SPACE PLAN

Confined space plan shall comply with paragraph CONFINED SPACE of Section HAZARDOUS SUBSTANCES, AGENTS AND ENVIRONMENTS of EM 385-1-1. Describe planning, control, policy and procedures to identify confined spaced, safe entry procedures and policy for emergency evacuation of injured persons.

1.15 SPILL RESPONSE PLAN

Provide information on hazardous chemicals and liquids anticipated to be stored on site and how Contractor proposes to contain spills, safely respond and clean up spills. Describe planning, controls, personal protective equipment and clean-up procedures.

1.16 SAFETY OFFICER

Designate an on-site Safety Officer to manage accident prevention program. Safety Officer or assistant shall be on site during all work. Safety Officer shall report to and work directly for Contractor's on-site top manager (or higher level official) or corporate safety officer. Safety Officer shall be authorized to take immediate steps to correct unsafe and unhealthful conditions. Submit Safety Officer's resume of qualifications and job description with within 20 days after Notice of Award.

1.16.1 Safety Officer Qualifications

Safety Officer shall have five years construction site experience on similar projects with experience as site safety specialist or Safety Officer. Safety Officer shall be qualified and have ability to manage on-site Contractor safety program, identify hazards and identify resources necessary to reduce hazards. Must have worked on similar types of projects and completed an OSHA training qualification class of at least 10 hours of classroom instruction. To be credited for satisfying experience requirements, a minimum 50 percent of the time shall have been devoted to safety and occupational health work. First aid work is not creditable.

1.17 DISTRICT SAFETY PROGRAM

1.17.1 Site Safety Inspections by District Personnel

District Safety Office personnel perform periodic safety inspections on contract work sites as a staff function on behalf of District Engineer. District Construction Quality Assurance personnel periodically inspect plant, equipment and contract sites and evaluate safety as part of District construction program. When contract diving operations occur District Dive Coordinator may visit to inspect and observe Contractor. Inspectors evaluate how well both District personnel and Contractor are complying with requirements in EM 385-1-1, CESAJR 385-1-1, approved Accident Prevention Plan and supplements. Inspector reports will be submitted to Contracting Officer's Representative. Contractor will be notified of both accomplishments and deficiencies by Contracting Officer's Representative.

Promptly correct deficiencies, document corrections and notify Contracting Officer.

1.17.2 Safety Pays Program

Safety Pays is described in CESAJP 385-1-2 located on Jacksonville District web site shown in paragraph SAFETY MANUALS above. Safety Pays is an incentive safety program where both Contractor and Contracting Officer's personnel are recognized for efforts to provide safer working environment.

1.18 MEETINGS

1.18.1 Phase Meetings

Refer to Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL. Activity Hazard Analysis for each definable feature of work shall be reviewed and personnel attendance documented by Contractor. Examination of safety controls equipment is on-going in follow-up phase and progress meetings.

1.18.2 Supervisor Weekly Safety Meetings

Hold weekly meeting with on-site supervisors, foremen and QC Staff, at project site. Supervisor meeting shall address prevention of accidents, lessons learned, items of concern. Attach minutes with Contract number, signatures of attendees, and a list of topics discussed to the Contractor Quality Control Daily Report.

1.18.3 Weekly "Tool Box Meeting"

Hold a brief weekly meeting with all on-site personnel before start of work shift on a safety subject planned to prevent problems. For example, if hot weather is expected, discuss heat stress prevention and treatment. Report subject and number of employees attending on the Contractor Quality Control Daily Report.

1.19 DISPLAY OF SAFETY INFORMATION

Refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES. Provide a bulletin board to display following for viewing by on-site construction personnel:

a. Poster "Safety and Health Protection On the Job" required by Department of Labor, OSHA.

b. Emergency phone numbers.

c. Strip map with route to nearest emergency care facility.

d. Accident Reporting and Workman's Compensation information.

e. Applicable Activity Hazard Analyses (AHA).

1.19.1 Placarding

a. Label confined spaces.

b. Post confined space entry permit at entry point prior to persons entering.

c. Label and placard all hazardous materials stored or encountered on site (refer to Clause HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (CESAJ ADAPTATION) of Section 00800 SPECIAL REQUIREMENTS).

d. Safety Scoreboard Sign.

e. Provide a sign indicating number of days since last lost time injury (refer to Section 01500 TEMPORARY CONSTRUCTION FACILITIES).

1.20 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to project including: equipment operating manuals; manufacturer catalogs; Material Safety Data Sheets (MSDSs) on-site. (Refer to Clause HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (CESAJ ADAPTATION) of Section 00800 SPECIAL REQUIREMENTS.) Maintain one copy of APP with AHA and supplemental plans required by the contract.

1.21 REPORTS

1.21.1 Complaints and Accident Investigation

Contracting Officer will investigate complaints of unsafe or unhealthful working conditions received from Contractor employees or others. Contracting Officer will assign personnel to investigate serious accidents. Contractor will be notified of investigation results.

1.21.2 Accident Reports

Designate individual to track exposure data (hours worked); perform accident investigations; prepare reports and logs; and, notify Contracting Officer of accidents (to include subcontractors). Conduct accident investigations to establish causes for accidents and injuries. For an accident or work related illness which results in a lost workday or over $2,000 in property damage, notify Contracting Officer's Representative within one work day providing information in paragraph "Notification" below. Complete Accident Investigation Report (ENG FORM 3394) and provide completed report to Contracting Officer within 5 work days of accident. For fatal accident, over $200,000 damage, three or more persons hospitalized, or any accident which may result in adverse publicity to Corps Of Engineers, immediately notify Contracting Officer's Representative and District Safety Office using phone and fax numbers provided at Preconstruction Conference. Submit completed ENG 3394 as soon as possible after initial phone or fax notification. Accident Investigation Report form (ENG FORM 3394) and instructions for completing form are at http://www.usace.army.mil/inet/usace-docs/forms/.

1.21.3 Notification

Notify Contracting Officer with following information:

Contractor Name
Contract Number and Title
Type of contract
Location where accident occurred
Date and time of accident
Names of personnel injured
Extent of injury and property damage

A brief description of accident (to include type of construction equipment used, PPE used, etc.).

1.21.4 Monthly Exposure Report

Submit a monthly exposure report to Contracting Officer. Exposure report is a total of employee-hours worked each month for all site workers, both prime and subcontractor.

PART 2 PRODUCTS

2.1 CONFINED SPACE SIGNAGE

Provide permanent signs at access covers for new permit required confined spaces. Signs wording: "DANGER -- PERMIT REQUIRED CONFINED SPACE - DO NOT ENTER" on bold letters a minimum of one inch in height and constructed to be clearly legible with all paint removed. The signal word "DANGER" shall be red and readable from 5 feet.

2.2 FIRST AID KITS

Furnish one 16-unit first aid kit per 25 employees, inspect weekly for supplies and note on inspection form located at kit.

2.3 PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers shall be located and used in accordance with paragraph FIRST RESPONSE FIRE PROTECTION of Section FIRE PREVENTION AND PROTECTION of EM 385-1-1, inspected monthly, maintained, and recharged as specified in NFPA 10.

PART 3 EXECUTION

3.1 EMERGENCY MEDICAL TREATMENT

Contractor shall arrange with local authorities for emergency medical response, treatment and evacuation. Provide first aid kits in areas of work and inspect weekly to ensure stockage. Provide 2 personnel trained in first aid and CPR for each shift in accordance with paragraph GENERAL of Section MEDICAL AND FIRST AID REQUIREMENTS of EM 385-1-1.

3.2 ACCIDENT PREVENTION

Comply with EM 385-1-1, NFPA 241, approved APP, AHA, and other related submittals. Contractor shall become familiar with safety requirements in Clause ACCIDENT PREVENTION of Section 00700 CONTRACT CLAUSES; EM 385-1-1; CESAJR 385-1-1; CESAJP 385-1-2, and latest OSHA standards, applicable U.S. Coast Guard safety regulations, and applicable State of Florida laws and regulations and local fire and safety regulations. Contractor shall have full knowledge of personal protective equipment to be provided workmen and applicable safety standards. EM 385-1-1 and CESAJR 385-1-1 are consistent with OSHA Construction Safety and Health Regulations 29 CFR 1926. For operations not covered under EM 385-1-1or CESAJR 385-1-1, OSHA standards shall be complied with. When there is no OSHA standard, comply with Department of the Army, Department of Defense, U.S. Coast Guard or National Consensus Standards (e.g., API - American Petroleum Institute). Contractor shall only use plant and equipment in compliance with contract safety requirements.

3.3 CONFINED SPACE ENTRY

Establish a confined space entry permit system. A permit shall be issued for each confined space entry. Permits shall include location of work, work description, employees assigned entry, entry date and time, results of atmospheric tests performed, person performing test, authorization and permit expiration time. A sample confined space permit is at Jacksonville District's Construction web site: http://www.saj.usace.army.mil/conops/index.htm. Post permits at entry point when working in confined space and renew when entry personnel change. Forward a copy of confined space permits to Contracting Officer prior to entry.

3.4 OIL AND HAZARDOUS MATERIAL SPILLS AND CONTAINMENT

Report all spills to Contracting Officer immediately. Clean-up spills in accordance with EM 385-1-1 and MSDSs. Use dikes, curbs to prevent spread of oil or hazardous materials from storage tanks and piping leaks. Comply with Section 01355 ENVIRONMENTAL PROTECTION reporting.

3.5 DIVING OPERATIONS

Submit a Dive Operations Plan when work is performed adjacent to, on or over water. No matter if a dive is actually planned or only required as a contingency (i.e., most dredging projects) submit a Diving Operations Plan for Contracting Officer's approval. Dive Operations Plan shall cover all requirements in Section CONTRACT DIVING OPERATIONS of EM 385-1-1 and Appendix CONTRACT DIVING OPERATIONS of CESAJR 385-1-1. Dive Operations Plan consists of a "Safe Practices Manual" describing Contractor's diving program and a "Dive Plan" describing site specific information of proposed dive or contingency dive. Safe Practices Manual, Dive Plan and revisions shall have cover sheets signed and dated by Contractor. When diving is subcontracted, cover sheets shall also be signed and dated by diving contractor's principal or authorized representative.

3.5.1 Dive Operations Reviewer

Dive Operation Plans shall be submitted by Contractor to Contracting Officer in accordance with Section 01330 SUBMITTAL PROCEDURES. Dive Operations Plans are reviewed by Jacksonville District Diving Coordinator. A copy of the Dive Operation Plan shall be furnished to:

U.S. Army Corps of Engineers, Jacksonville District
ATTN: CESAJ-CO-CQ (Mr. Tappmeyer or Mr. Vecchitto)
P.O. Box 4970
Jacksonville, FL 32232-0019

Diving Coordinator fax is 904-232-3696.

3.6 PERSONNEL PROTECTION

Designate and mark safety zones requiring personal protection. Examples include hard hat zone, areas where eye and hearing protection is required.

3.6.1 Hazardous Noise

Provide hazardous noise signs, and hearing protection, wherever equipment and work procedures produce sound-pressure levels greater than 85 dBA steady state or 140 dBA impulse, regardless of duration of exposure.

3.7 ELECTRICAL WORK

Underground electrical spaces shall be certified safe for entry before entering to conduct work. Cable intended to be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with Contracting Officer and utility owner for identification. No outage request will be accepted until Contractor satisfactorily documents circuits have been clearly identified. In walls or concealed areas use non-conductive fish tape to pull wire. Perform all high voltage cutting remotely. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. Insulating blankets, hearing protection, and switching suits may be required, depending on the specific job and as delineated in the Contractor AHA.

3.8 WORK IN CONFINED SPACES

Comply with the requirements in paragraph CONFINED SPACE of Section HAZARDOUS SUBSTANCES, AGENTS AND ENVIRONMENTS EM 385-1-1. Any potential for a hazard in the confined space requires a permit system to be used.

a. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See subparagraph "Permit-required confined space entry procedures" of paragraph CONFINED SPACE of Section HAZARDOUS SUBSTANCES, AGENTS AND ENVIRONMENTS of EM 385-1-1 for entry procedures.) All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.

b. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained.

c. Ensure the use of rescue and retrieval devices in confined spaces greater than 5 feet in depth. Conform to subparagraphs "On-site rescue/emergency teams", ""Off-site rescue and emergency services", and "To facilitate non-entry rescues, retrieval systems or methods" of paragraph CONFINED SPACE of Section HAZARDOUS SUBSTANCES, AGENTS AND ENVIRONMENTS of EM 385-1-1.

d. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

e. Include training information for employees who will be involved as entrant attendants for the work. Conform to subparagraph "Training" of paragraph CONFINED SPACE of Section HAZARDOUS SUBSTANCES, AGENTS AND ENVIONMENTS of EM 385-1-1.

f. Entry Permit. Use ENG FORM 5044-R or other form with the same minimum information for the Daily Confined Space Entry Permit, completed by the qualified person. Post the permit in a conspicuous place close to the confined space entrance.

3.9 HOUSEKEEPING

3.9.1 Clean-up

All debris in work areas shall be cleaned up daily or more frequently as necessary. Construction debris may be temporarily located in an approved location; however, garbage accumulation must be removed each day.

3.9.2 Dust Control

In addition to the dust control measures required elsewhere in contract documents, dry cutting of brick or masonry shall be prohibited. Wet cutting must address control of water run off.

3.10 ACCIDENT SCENE PRESERVATION

For serious accidents and accidents involving weight handling equipment, ensure the accident site is secured and evidence is protected remaining undisturbed until released by the Contracting Officer.

3.11 QUALITY CONTROL

Quality Control and Safety are supporting complimentary functions. Include safety activities and documentation of meetings and site safety inspection as a part of Quality Control activities and QC Daily report required in Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL.

3.12 DIVE OPERATIONS

Execute dives in accordance with approved Dive Operations Plan submittal; Section CONTRACT DIVING OPERATIONS of EM 385-1-1; and, Appendix CONTRACT DIVING OPERATIONS of CESAJR 385-1-1. Contractor shall submit completed daily dive logs at the end of each dive day. Daily dive logs shall be faxed to District Dive Coordinator 904-232-3696 or his authorized representative. Contractor shall use COE form ENG 4615 and ENG 4616 to record daily diving activities. Dive forms may be downloaded from Jacksonville Construction-Operations web site at: http://www.saj.usace.army.mil/conops/diving/.

3.13 SAFE ACCESS AND FALL PROTECTION

Furnish ladders, nets, guard rails and other required fall protection equipment to provide safe access and fall protection in accordance with Section SAFE ACCESS AND FALL PROTECTION of EM 385-1-1. Furnish personal protective equipment of body harnesses, lanyards, lifelines in accordance with subparagraph "Lineman's equipment" of Section PERSONAL PROTECTIVE AND SAFETY EQUIPMENT of EM 385-1-1. Furnish safety and debris nets designed and tested in accordance with paragraph SAFETY AND DEBRIS NETS - DESIGN AND TESTING of Section PERSONAL PROTECTIVE AND SAFETY EQUIPMENT of EM 385-1-1. Identify features of work and work areas with high falling risk requiring fall protection. Examples include: work above six feet; work on scaffolding; work near edges or penetrations of floors; roofs or decks; steel erection; overhead electrical work; dredging; work with construction

lift equipment. In preparatory phase review activity hazard analysis, required equipment, employee supervision and supervisor inspection of equipment. In initial phase provide employee training and perform supervisor inspection of PPE and other fall protection equipment. During follow-up phase perform on going supervision and inspection by supervisors, safety and quality control staff.

3.13.1 Fall Protection Training

Train employees exposed to fall hazards in use of PPE, hazard identification, avoidance, and policy to correct hazards. Train Supervisors to inspect fall protection equipment and supervise work to reduce fall risks.

3.14 EMPLOYEE SAFETY AND OCCUPATIONAL HEALTH INDOCTRINATION (ESHI)

See APPENDIX A at the end of this Section (2 pages).

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DIVISION 02 - SITE WORK

SECTION 02325

DREDGING

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SECTION 02325

DREDGING

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials, and equipment, and performing all excavation and disposal of all material as specified herein or indicated on the drawings. This scope also includes all necessary measures for protection of the environment. Environmental protection requirements under this contract are as important to overall completion of the work as other technical aspects. Failure to meet the requirements of these specifications for environmental protection may result in work stoppages or termination for default. No part of the time lost due to any such work stoppages shall be made the subject of claims for extensions of time or for excess costs or damages by the Contractor. If the Contractor fails or refuses to promptly repair any damage caused by violation of the provisions of these specifications, the Contracting Officer may have the necessary work performed and charge the cost thereof to the Contractor.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING MANUALS (EM)

EM 1110-1-1000	(1993) Photogrammetric Mapping
EM 1110-1-1002	(1990) Survey Markers and Monumentation
EM 1110-1-1003	(1996) NAVSTAR Global Positioning System Surveying
EM 1110-1-1004	(1994) Deformation Monitoring and Control Surveying
EM 1110-1-2909	(1998; Chg 2) Geospatial Data and Systems
EM 1110-2-1003	(2002) Hydrographic Surveying

FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS (FBPSM)

FBPSM	Minimum Technical Standards, Chapters 177, 472, 61G17

TRI-SERVICE STANDARDS (TSS)

TSS	(2001) A/E/C CADD Standards

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Notice of Intent to Dredge

Prior to commencement of work on this contract, the Contractor shall notify the Commander, Seventh Coast Guard District of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least two weeks prior to the commencement of this dredging operation. A copy of the notification shall be provided to the COR.

Relocation of Navigation Aids

The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid to navigation. Within 7 calendar days following receipt of Notice of Award, the Contractor shall notify the Commander, Seventh Coast Guard District, Miami, Florida, of his plan to dredge adjacent to any aids which require relocation to facilitate dredging. The notification shall be sent via Fax to 305-415-6757, ATTN: Mr. Joe Embres. This notification shall be immediately followed by a formal written request with a copy to the Contracting Officer. The Contractor shall also contact the U.S. Coast Guard for information concerning the position to which the aids will be relocated.

SD-07 Certificates

Equipment and Performance Data

The Contractor shall furnish proof of electronic positioning equipment calibration to the Contracting Officer.

Notification of Discovery of Historical Period Shipwreck Sites

The Contractor shall immediately notify the Contracting Officer if any shipwreck, artifact, or other objects of antiquity that have scientific or historical value, or are of interest to the public, are discovered, located, and/or recovered.

Notice of Need for Dredging Survey

The Contractor shall give 10 days advance notice, in writing, to the Contracting Officer of the need for a pre-dredging survey or after-dredging survey for final acceptance for each acceptance section.

Daily/Monthly Report of Operations

The Contractor shall prepare and submit two (2) copies of the Daily Report of Operations, using either ENG Form No. 27A or ENG Form No. 4267, for each dredge and/or unloader working. This

report shall be submitted on a daily basis and not in groups (groups = multi-days reports packaged together at one time) except as noted in subparagraph a. below. A copy of these forms are appended to the end of this Section. In addition to the daily report, the Contractor shall prepare a Monthly Report of Operations for each month or partial month's work on either ENG Form No. 27A or ENG Form No. 4267. The monthly report shall be submitted on or before the 7th of each month, consolidating the previous month's work. Upon completion of the job, the Contractor shall submit a consolidated job report, combining the monthly reports. The Contractor shall distribute one copy of each report to the District Engineer; ATTN: CESAJ-EN-C; U.S. Army Engineer District, Jacksonville, P.O. Box 4970; Jacksonville, Florida 32232-0019. Reports shall be submitted on a monthly basis with daily reports accompanying the monthly report and job report.

Additionally, one copy of these shall be maintained by the Contractor on the dredge(s) for the Contracting Officer's inspection purpose. Further instructions on the preparation of the reports will be furnished at the Preconstruction Conference.

Notice of Misplaced Material

The Contractor shall notify the U.S. Coast Guard Marine Safety Office of any misplaced material as stated in the Clause OBSTRUCTION OF NAVIGABLE WATERWAYS of Section 00700 CONTRACT CLAUSES.

Declaration of Inspection Stateside

Refer to paragraph FUEL OIL TRANSFER OPERATIONS below for submittal.

1.4 DREDGING RESTRICTIONS

1.4.1 Hopper Restriction

The use of hopper dredges is prohibited from 01 March through 30 November.

1.4.2 Transportation of Material

Water and dredge material shall not be permitted to overflow or spill out of barges or hopper dredges during transport to the disposal site.

1.5 PUMPING OF BILGES

Contractors are warned that pumping oil or bilge water containing oil into navigable waters, or into areas which would permit the oil to flow into such waters, is prohibited by Section 13 of the River and Harbor Act of 1899, approved 3 March 1899 (30 Stat. 1152; 33 U.S.C. 407). Violation of this prohibition is subject to the penalties under the referenced Acts.

1.6 HISTORICAL PERIOD SHIPWRECK SITES

If any shipwreck, artifact, or other objects of antiquity that have scientific or historical value, or are of interest to the public, are discovered, located, and/or recovered, the Contractor acknowledges that:

a. The site(s), articles, or other materials are the property of the

State of Florida, with title vested in the Department of State, Division of Historical Resource; and that,

b. He will immediately notify the Contracting Officer.

1.7 PERMITS

The Contractor's attention is directed to the Clause PERMITS AND RESPONSIBILITIES of Section 00700 CONTRACT CLAUSES and the paragraph PERMITS AND AUTHORIZATIONS of Section 01355 ENVIRONMENTAL PROTECTION.

1.8 FUEL OIL TRANSFER OPERATIONS

In accordance with U.S. Coast Guard regulations (33 CFR 156.120), couplings used in fuel oil transfer operations on any vessel with a capacity of 250 or more barrels of oil shall be either a bolted or full-threaded connection; or a quick-connect coupling approved by the Commandant; or an automatic back-pressure shutoff nozzle used to fuel the vessel. An executed fuel oil transfer (Declaration) form signed by the tanker operator shall be submitted to the Contracting Officer for each refueling operation. The U.S. Coast Guard shall also be notified prior to any refueling. A copy of the Declaration of Inspection for Refueling is appended to the end of this Section.

1.9 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (COMDTINST M16672.2), or 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland) as applicable.

1.10 FINAL CLEANUP

Final cleanup, as stated in the paragraph COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK of Section 00700 CONTRACT CLAUSES, shall include the removal of all the Contractor's plant and equipment either for disposal or reuse. Plant and/or equipment and/or materials to be disposed of shall ONLY be disposed in a manner and at locations approved by the Contracting Officer. Unless otherwise approved by the Contracting Officer, the Contractor will not be permitted to abandon any equipment in the disposal area for dredged materials or other areas adjacent to the worksite.

a. Failure to promptly remove all plant, pipeline, equipment, and materials upon completion of the dredging will be considered a delay in the completion of the final cleanup and demobilization work. In such case, the Government will exercise its right as stated in Clause DEFAULT (FIXED-PRICE CONSTRUCTION) of Section 00700 CONTRACT CLAUSES to remove any plant and/or equipment and/or materials at the Contractor's expense.

1.11 WORK VIOLATIONS

Work done in violation of these specifications or a verbal or written stop order of the Contracting Officer will be considered as unsatisfactory progress for purposes of progress payments in accordance with Clause PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS of Section 00700 CONTRACT CLAUSES.

PART 2 PRODUCTS

2.1 CHARACTER OF MATERIALS

2.1.1 General

a. The Contractor is responsible for making a thorough study of all geotechnical data presented in the plans and specifications. Refer to paragraph PHYSICAL DATA of Section 01000 GENERAL REQUIREMENTS concerning additional information regarding the core borings.

~~b. In the core boring logs, the elevations are in feet and tenths of feet and refer to the mean low water datum, which is 0.6 feet lower NGVD. Blows/0.5 FT refers to the number of hammer blows using a 300 pound hammer with an 18 inch drop required to advance a split spoon to one-half foot. Blows/FT refers to the number of hammer blows using a 300 pound hammer with an 18 inch drop required to advance a two inch sampler one foot. The spoon is two feet long and is driven continuously one and one half feet. (SP) and (SP-SM) refer to the unified soil classification system. The materials shown on the core logs have been classified on the basis of visual examinations in the field. Laboratory classifications are based on the laboratory testing and are shown as notes on the boring logs.~~

2.1.2 New Pass

a. The materials data available at this location are from the investigation done in 1994. The split spoon samples were classified as (SP) and (SP-SM) sands in laboratory tests and as (SP) sands in core boring logs. The materials are a variable mixture of fine quartz and shell sands. The shell sands consist of fine to gravel shell and shell fragments. As the latest data available is from 1994, and the site has been subsequently dredged, no inference should be drawn that the current material will match the characteristics of the core borings. Please refer to the core boring logs and gradation curves appended to the end of Section 01000 GENERAL REQUIREMENTS for this location.

b. In the core boring logs, the elevations are in feet and tenths of feet and refer to the mean low water datum, which is 0.6 feet lower NGVD. Blows/0.5 FT refers to the number of hammer blows using a 300 pound hammer with an 18 inch drop required to advance a split spoon to one-half foot. Blows/FT refers to the number of hammer blows using a 300 pound hammer with an 18 inch drop required to advance a two inch sampler one foot. The spoon is two feet long and is driven continuously one and one half feet. (SP) and (SP-SM) refer to the unified soil classification system. The materials shown on the core logs have been classified on the basis of visual examinations in the field. Laboratory classifications are based on the laboratory testing and are shown as notes on the boring logs.

~~b~~c. Excavation of in-situ rock, if encountered, will not be

required. However, its location shall be reported to the Contracting Officer. The Contractor should also expect to encounter the typical trash and debris normally found in working navigation channels.

2.1.3 Gordon Pass

The character of the material to be dredged from the areas shown on the plans and specifications is indicated by the 1999 drilling logs and laboratory test data appended to the end of Section 01000 GENERAL REQUIREMENTS. Historic drilling logs and notes are available for inspection at the Jacksonville District Office and the core samples taken are available at the Jacksonville District Warehouse (refer to paragraph PHYSICAL DATA of Section 01000 GENERAL REQUIREMENTS. The materials to be dredged are a result of shoaling that has occurred since the last dredging event. Vibracores in Cuts 1 through 8 (CB-NGP99-1 through CB-NGP99-8) show the material to be dredged, consisting of fine to medium grained quartz sand (SP and SP-SM) with variable amounts of shell fragments. Boring CB-NGP99-9 did not recover data. Vibracores in cuts 10 through 15 (CB-NGP99-10 through CB-NGP99-16) contain silt (MH), silty sand (SM), and weathered limestone gravel (GP). Of these borings, the only cores with sediment above the project depth of minus 10 feet were CB-NGP99-13 and CB-NGP99-16. When dredging the shoal materials described above, the Contractor should expect to encounter the typical trash and debris normally encountered in working navigation channels.

PART 3 EXECUTION

3.1 NOTIFICATION OF COAST GUARD

3.1.1 Navigation Aids

Navigation aids located within or near the areas required to be dredged will be removed, if necessary, by the U.S. Coast Guard in advance of dredging operations. The Contractor shall not remove, change the location of, obstruct, willfully damage, make fast to, or interfere with any aid of navigation.

3.1.2 Dredging Aids

The Contractor shall obtain approval from the U.S. Coast Guard for all buoys, dredging aid markers to be placed in the water, and dredging aid markers affixed with a light prior to the installation. Dredging aid markers and lights shall not be colored or placed in a manner that they will obstruct or be confused with navigation aids.

3.2 WORK AREA

The Contractor will be ~~permitted~~required to exclude the public from the work areas in the immediate vicinity of his dredging, transporting, and disposal operations. The Contractor shall prevent public access to the discharge end of the pipeline. The Contractor shall erect, maintain, and move as necessary, a restrictive barrier around the discharge of the hydraulic pipeline. The barrier shall be constructed so as to prevent the public from approaching the discharge from any direction closer than 40 feet. The Contractor shall post signs in a conspicuous location with the wording "DANGER - HIGH PRESSURE DISCHARGE FROM DREDGE". Enforcement shall be the Contractor's responsibility at no additional cost to the Government. The enforcement shall be coordinated with local enforcement agencies and will be subject to approval of the Contracting Officer. Additionally, the

Contractor shall place a safety person at the discharge end of the disposal pipeline. The safety person shall be present at all times during discharge operations and will maintain radio communication between the dredge and the disposal operation.

3.2.1 Access

The Contractor shall be responsible for providing and maintaining access necessary for his equipment and plant to and from the work site, mooring area, and disposal area. There is no land access to Keewaydin Island Beach Disposal Area "C". This area will require access by barge. In addition, access to Longboat Key (Disposal area A) and Lido Key (Disposal area B)is very limited and ~~may not be available immediately adjacent to the disposal location~~will require access by landing from the Gulf of Mexico. Access to these sites shall be coordinated through local governmental officials, including the Town of Longboat Key (Disposal Area "A"), the City of Sarasota (Disposal Area "B"), and the City of Naples (Disposal Area "C"). The Contractor shall ascertain the environmental conditions which can affect the access such as climate, winds, currents, waves, depths, shoaling, and scouring tendencies.

3.2.2 Protection of Existing Waterways

The Contractor shall conduct his operations in such a manner that material or other debris are not pushed outside of dredging limits or otherwise deposited in existing side channels, basins, docking areas, or other areas being utilized by vessels. The Contractor will be required to change his method of operations as may be required to comply with the above requirements. Should any bottom material or other debris be pushed into areas described above, as a result of the Contractor's operations, the same must be promptly removed by and at the expense of the Contractor to the satisfaction of the Contracting Officer.

3.2.3 Adjacent Property and Structures

No dredging will be permitted within 25 feet of any structure. Any damage to private or public property or structures resulting from the disposal or dredging operations shall be repaired promptly by the Contractor at his expense. Contractor's negligence will result in suspension of dredging and require prompt repair at the Contractor's expense as a prerequisite to the resumption of dredging.

3.2.4 Subaqueous Cable Crossings

The Contractor shall be responsible for verifying the locations and depths of all utility crossings and take precautions against damages which might result from his operations, especially the sinking of dredge spuds and/or anchors into the channel bottom, in the vicinity of utility crossings. If any damage occurs as a result of his operations, the Contractor will be required to suspend dredging until the damage is repaired and approved by the Contracting Officer. Costs of such repairs and downtime of the dredge and attendant plant shall be at the Contractor's expense.

3.3 DISPOSAL OF EXCAVATED MATERIAL

3.3.1 General

3.3.1.1 New Pass

The materials excavated from the New Pass shall be transported to and disposed of in Beach Disposal Areas "A" and "B" as shown on the contract drawings. The average distance to which material dredged from New Pass will have to be transported to the disposal areas will be approximately 10,000 feet and the maximum distance will be approximately 23,500 feet. The Contractor will provide two alternative bid schedules (Alternative I and Alternative II) for placement of material in Disposal Area "B" on Lido Key. All items are the same for the two Alternative bid schedules with the exception of the location and method of placement in Disposal Area "B" (Line Items 0001AB and 0007AB). No other alternative disposal areas will be allowed.

3.3.1.2 Gordon Pass

The materials excavated from Gordon Pass shall be transported to and disposed of in Beach Disposal Area "C" as shown on the contract drawings. The average distance to which material dredged from Gordon Pass will have to be transported to the disposal area will be approximately 5,000 feet and the maximum distance will be approximately 10,000 feet. No alternative disposal areas will be allowed.

3.3.2 Beach Disposal

Dredge material shall be placed in the beach disposal areas as shown on the contract drawings. The dredged material shall be placed to the sections and limits as shown on the drawings to the extent of the dredged material. Passage of the equipment, pipeline, etc. shall be confined to the limits shown in the contract drawings.

3.3.2.1 New Pass

The Contracting Officer will determine the order of work for placement of the materials dredged from New Pass. Dredged material from New Pass shall be placed at following locations as shown on the contract drawings:

a. The first 123,000 cy of material from New Pass shall be placed in the South Beach Disposal Area "B" on Lido Key. The Contractor will include prices for two alternative methods of placement on the alternative bid schedules. The method for placement for Alternative I is placement of the material on Lido Key between FDEP monuments R-35.5 and R-38.5 (approximately 3,000 feet of shoreline). Alternative II is for placement of the material on Lido Key between FDEP monuments R-35.5 and R-44 (approximately 8,500 feet of shoreline). For this alternative, the existing beach disposal area would have to be graded from its existing elevation of approximately elevation plus 5 feet NGVD down to plus 3.0 feet NGVD. The dredged material would then be placed on the graded area and graded to a berm at elevation plus 5.0 feet NGVD. The locations of FDEP monuments R-35.5 to R-44 appear on the contract drawings. The placement of material will start at R-35.5 and move southward to R-38.5 for Alternative I or R-44 for Alternative II.

b. The existing beach disposal area "B" (for alternate 2) should only be graded down to El. +3.0 NGVD in those areas where dredged material will be placed. Under no circumstances will the Contractor grade the existing beach to El. +3.0 NGVD without placement of sand to return the graded area to El. +5.0 NGVD.

c~~b~~. The remaining material from Cuts 1 and 2, and all of the material dredged for the Options shall be placed in the North Beach

Disposal Area "A" on Longboat Key from FDEP monument T-22 to R-26~~8~~. The locations of FDEP monuments T-22 to R-2~~8~~9 appear in the contract drawings and are appended to end of Section 01000 GENERAL REQUIREMENTS. The placement of material will start at R-26 and proceed north to ~~R~~T -22. If additional sand is available, the Contractor shall begin placement at R-2~~8~~4 and move north to R-2~~6~~2.

3.3.2.2 Gordon Pass

The Contracting Officer will determine the order of work for placement of the materials dredged from Gordon Pass. Dredged material from Gordon Pass shall be placed at the locations shown on the contract drawings. All material from Gordon Pass shall be placed in the Keewaydin Island Beach Disposal Area "C" from approximately 300 feet south of the jetty, at R-90, to R-94. The locations for FDEP monuments R-90 to R-94 appear in the contract drawings and are appended to the end of Section 01000 GENERAL REQUIREMENTS. The disposal of material will start at R-90 and move southward to R-94.

3.3.2.3 Layout

The beach disposal areas shall be laid out with the limits plainly marked with conspicuous stakes, buoys, or other suitable means by the Contractor. The boundaries of the beach disposal areas are shown on the drawings. The dredged materials shall be placed to the section and limits as shown on the drawings as material permits. The Contractor may use heavy equipment to shape the sand to create a uniform beach berm as shown on the drawings.

a. For Beach Disposal Area "A", placement of the material will not be above EL +~~6.0~~4.68 (5.0 MLW) feet NGVD. In addition, no fill will be placed in any vegetated areas.

b. For Beach Disposal Area "B" (Alternative I), material will be placed between FDEP Monuments R-35.5 and R-38.5 and within the beach template as shown on the contract drawings. No material will be placed in any vegetated areas.

c. For Beach Disposal Area "B" (Alternative II), the area will be graded to plus 3.0 feet NGVD and the material placement will not be above plus 5.0 feet NGVD. No materials will be placed in any vegetated area.

d. For Beach Disposal Area "C", material will not be placed above EL +5.0 feet NGVD. In addition, no fill will be placed in any vegetated areas.

3.3.2.4 Order of Placement

Dredged material shall be placed in the disposal areas listed in the above subparagraphs. The Contracting Officer will determine the order of work for dredging and placement of the materials dredged. The Contracting Officer may direct the Contractor to make the dredging at Gordon Pass the first order of work.

a. Prior to placement of fill, the Contractor shall remove from the site of the work all snags, driftwood, and similar debris lying within the foundation limits of the beach fill section. All materials removed shall be disposed of in areas provided by and at the expense of the Contractor and approved by the Contracting Officer. Grading and other

construction equipment will not be permitted outside the easement lines shown on the drawings except for ingress and egress to and from the site.

b. The excavated material shall be placed and brought to rest on the beach to the lines, grades, and cross sections indicated on the drawings, unless otherwise provided for herein or directed by the Contracting Officer. The Contractor shall not stockpile pipe or any other equipment or debris on the beach except as approved by the Contracting Officer. The beach is subject to changes and the elevations on the beach at the time the work is done may vary from the elevations shown on the contract drawings. The Contracting Officer reserves the right to vary the width and/ or grades of the berm from the lines and grades shown on the plans in order to establish a uniform beach for the entire length of the project. The beach disposal sections shown on the drawings are for the purpose of estimating the theoretical amount of fill needed and will be used by the Contracting Officer in making any change in the lines and grades. The Contractor may not be able to achieve the exact disposal area shown on the drawings. The Contractor will, however, be required to move the pipeline discharging the amount of dredged materials in an area that would produce that cross section. Earthen pedestrian access ramps shall be provided across the dredge discharge pipeline at 200-foot intervals. The Contractor shall monitor the dredge-and-fill operations and shall notify the Contracting Officer if and when the quantity to be dredged appears to be excessive for the designated beach disposal area. The Contractor will not be required to dress the fill below the mean high water line, but will be required to do the dressing specified in subparagraph "Dressing" below.

3.3.3 Grade Stakes

Grade stakes shall be metal pipes that can be completely removed intact by the Contractor after placement of the fill. Grade stakes shall be of sufficient length to protrude above the final berm elevation and facilitate their extraction. Contractor shall establish an inventory system for grade stake placement and recovery. Contractor shall certify in writing that all grade stakes and other contractor generated debris have been removed from the site as part of the final clean-up.

3.3.4 Temporary Longitudinal Dikes

Temporary longitudinal dikes and spreader and/or pocket pipe shall be used to prevent gullying and erosion of the beach fill and to retain the fill on the beach and within the limits of the fill cross section. As the work progresses, dikes or mounds shall be constructed along the waterline to direct the pipeline discharge longitudinally along the beach to avoid transverse gullying directly from the discharge point to the ocean, and to build the new berm to design grade. Longitudinal dikes shall initially be 300 feet long in advance of filling operations. They may be lengthened to meet water quality standards, to build to the required berms and grades, and to keep material within the toe-of-fill. The Contractor will not be held responsible for erosion caused by waves after the beach fill has been satisfactorily placed. No undrained pockets shall be left in any fill during or upon completion of the work. The Contractor shall not permit wastewater to flow landward of the fill section or water to pond between the fill and upland. Groins, bulkheads, revetments, seawater pipe structures, and other structures are within the fill section and shall be protected by the Contractor to prevent damage thereof by the Contractor's

operations. Any damages assessed as a result of any of the above items shall be at the Contractor's expense.

3.3.5 Rehandled Materials

Any material that is rehandled or moved and placed in its final position by methods other than hydraulic shall be placed in horizontal layers not exceed three (3) feet in thickness. Compaction of the layers will not be required. The Contractor shall schedule his operations to take advantage of the tide so that filling is done in the dry or as directed.

3.3.6 Dressing

Final dressing shall not take place until all dredging is completed, at which time all evidence of haul road or pipeline shall be removed and the fill shall be graded and dressed so as to eliminate any undrained pockets and abrupt humps and depressions in the beach fill surfaces and as necessary to comply with subparagraph "Tolerances" below. Grade stakes used in the placement of the fill shall be removed intact, without breaking. All dikes shall be completely degraded. The bank caused by wave forces shall be graded down to a slope no steeper than the slope indicated in the contract drawings.

3.3.7 Tolerances

A tolerance of one-half (0.5) foot above the prescribed berm grade and slopes above the wave zone will be permitted in the final beach surface.

3.3.8 Misplaced Materials

Materials deposited above the maximum indicated elevation or outside of the disposal areas shown will require the degrading or removal of such material at the Contractor's expense.

3.3.9 Debris Removal

The Contractor shall clean and remove from the beach disposal areas all debris that has been placed on the beach as a result of the disposal operation. The debris will be disposed of in a location provided by the Contractor and accepted by the Contracting Officer. In addition, the Contractor shall provide, as a minimum, one full-time person at the disposal site to police and maintain the disposal area free of trash, debris, metal cans, and man-made debris that may be part of the dredged material. The Contractor shall submit, for Contracting Officer approval, a workable plan that will permit the safe collection and removal of debris from the dredged material on a continuous basis. This plan shall be submitted as an addendum to the Contractor's Quality Control Plan.

3.3.10 Dredge Pipelines

3.3.10.1 Dredge Discharge Pipeline

The Contractor shall plainly mark the pipeline access routes with conspicuous stakes, targets and/or buoys to be maintained throughout the contract operations. A tight dredge discharge pipeline shall be maintained to prevent spilling of dredged material or dredge water outside of the disposal area. The Contractor shall provide and maintain radio communication between the dredge and the disposal areas and the dredge and the Contracting Officer. The pipeline shall be inspected at least twice

daily for leaks. Failure to immediately repair leaks in the discharge pipeline will result in suspension of dredging operations and require prompt repair of pipeline as a prerequisite to the resumption of dredging. The Contractor shall provide and maintain barricades and warning signals, as required by local, State, or Federal regulations or as directed. Any damage to private or public property resulting from the Contractor's operations shall be repaired by the Contractor at his expense. The Contractor shall provide sand ramp walkways across the beach pipeline at intervals not greater than 200 feet.

3.3.10.2 Submerged Pipeline

In the event the Contractor elects to submerge his pipeline, the pipeline shall rest on the bottom, and the top of the submerged pipeline and any anchor securing the submerged pipeline shall be no higher than the required project depth for the channel in which the submerged pipeline is placed. Should the Contractor elect to use a pipeline material which is buoyant or semi-buoyant, such as PVC pipe or similar low density materials, the Contractor shall securely anchor the pipeline to prevent the pipeline from lifting off the bottom under any conditions. The Contractor shall make daily underwater inspections of the submerged pipeline to ensure buoyancy has not loosened the anchors. The Contractor shall remove all anchors when the submerged pipeline is removed. The location of the entire length of submerged pipeline shall be marked with signs, buoys, lights, and flags conforming to U.S. Coast Guard regulations.

3.3.10.3 Floating Pipeline

Should the Contractor's pipeline not rest on the bottom, it will be considered a floating pipeline and shall be visible on the surface and clearly marked. In no case will the Contractor's pipeline be allowed to fluctuate between the surface and the bottom, or lie partly submerged. Lights shall be installed on the floating pipeline as required in paragraph SIGNAL LIGHTS above. The lights shall be supported either by buoys or by temporary piling, provided by the Contractor and approved by the Contracting Officer. Where the pipeline does not cross a navigable channel, the flashing yellow all-around lights shall be spaced not over 200 feet apart, unless closer spacing is required by U.S. Coast Guard personnel, in which case the requirements of the U.S. Coast Guard shall govern, at no additional cost to the Government.

3.3.11 Booster Pumps

Any booster pumps installed by the Contractor shall be located at least 300 feet from any residential-type building or house. Booster pumps, their prime movers, and any auxiliary equipment shall be fitted or equipped with mufflers, noise control enclosures, or other engineering noise control methods, measures, and features such that steady noise emanating from this equipment does not exceed 85 decibels on the A scale at slow response, and impulsive noise does not exceed 140 decibels. Such items shall be maintained throughout the course of the work.

3.3.12 Pre-Placement and Post-Placement Beach Disposal Surveys

Before placing any dredged material on the beach, the Contractor shall conduct a pre-placement beach disposal area survey. If the placement method for Alternative II is used, an intermediate survey will be made by the Contractor subsequent to grading the existing beach and prior to the placement of dredge material. After the completion of all beach disposal

operations, the Contractor shall conduct a post-placement beach disposal area survey. The beach disposal area surveys shall be conducted according to the requirements described below.

3.3.12.1 Compliance

Surveying and mapping shall be in strict compliance with EM 1110-1-1000, EM 1110-1-1002, EM 1110-1-1003, EM 1110-1-1004, EM 1110-1-2909, EM 1110-2-1003, FBPSM, and TSS.

3.3.12.2 Metadata

Metadata is "data about data." It describes the content, identification, data quality, spatial data organization, spatial reference, and other characteristics of data. Each survey shall have metadata submitted with the final data submittal. The Contractor shall furnish a digital file using CORPSMET 95 (Metadata Software) with all appropriate data included.

3.3.12.3 Digital Data Media

All digital data shall be submitted on CD-ROMs.

3.3.12.4 Control

a. The horizontal datum shall be NAD 1983. The vertical datum shall be NGVD of 1929. All control monuments shall be verified both horizontally and vertically by a control survey. All control surveys shall be Third Order, Class II accuracy. The Contractor shall replace all missing or disturbed control monuments.

b. The basic control network shall be accomplished using precise differential carrier-phase Global Positioning System (GPS). Differential GPS baseline vector observations shall be made in strict compliance with the criteria contained in EM 1110-1-1003 and with the Geometric Geodetic Accuracy Standards and Specifications for Using GPS Relative Positioning Techniques by the Federal Geodetic Control Committee, version 5.0.

c. Network design, station and baseline occupation requirements for static and kinematic surveys, satellite observation time per baseline, baseline redundancies, and connection requirements to existing networks shall be in accordance with EM 1110-1-1003.

d. GPS derived elevation data shall be supplied with respect to above referenced vertical datum. Existing benchmark data and stations shall be used in tandem in a minimally constrained adjustment program to model the geoid. All supporting data used in vertical adjustment shall be submitted.

e. All horizontal and vertical control (double run forward and back) established shall be a closed traverse or level loop with no spurs and shall be of third order accuracy. All horizontal and vertical control along with baseline layouts, sketches, and pertinent data shall be entered in the field books (described below).

3.3.12.5 Field Books

All original field notes shall be kept in standard pocket size field books and shall be submitted with the final survey data submission and become the

property of the Government. The first four pages of the field books shall be reserved for indexing and the binding outside edge shall be free of all marking.

3.3.12.6 Scope of Survey

The area and density of survey coverage shall be the same as that shown on the drawings for the beach disposal area except that each profile line shall extend a minimum of 1,000 feet from the shoreline and shall be run at the same azimuth that is shown on the contract plans. All beach survey work shall be conducted under the supervision of a Professional Surveyor and Mapper registered in State of Florida and shall be signed and sealed by same.

3.4 REQUIRED DEPTH, ALLOWABLE OVERDEPTH, AND SIDE SLOPES

3.4.1 Required Depth

The material actually removed from within the specific areas to be dredged, to a depth of not more than the required depth shown on the drawings, will be estimated and paid for in accordance with the provisions contained in the subparagraphs "Measurement" and "Payment" of Section 01270 MEASUREMENT AND PAYMENT.

3.4.2 Allowable Overdepth

To cover the inaccuracies of the dredging process, material actually removed from the specified areas to be dredged, to a depth below the required depth of not more than the allowable overdepth shown on the drawings, will be measured and paid for in accordance with the provisions contained in the subparagraphs "Measurement" and "Payment" of Section 01270 MEASUREMENT AND PAYMENT.

3.4.3 Side Slopes

Side slope dredging will be required. Side slopes may be formed by box cutting, step cutting or dredging along the side slope. Material actually removed, within the limits approved by the Contracting Officer, to provide for final side slopes not flatter than those shown on the contract drawings, but not in excess of the amount originally lying above this limiting side slope, will be measured and paid for in accordance with the provisions contained in subparagraphs "Measurement" and "Payment" of Section 01270 MEASUREMENT and PAYMENT. Such amount will be estimated and paid for whether dredged in original position or by box cut dredging whereby a space is dredged below the allowable side slope plane on the bottom of the slope for upslope material capable of falling into the cut. End slopes and transition slopes will not be estimated or paid for under this contract. In such cases, a 0 horizontal on 1 vertical will be used with no upslope allowance provision applied outside the required prism.

3.4.4 Excessive Dredging

Material taken from beyond the limits as described in subparagraphs "Allowable Overdepth" and "Side Slopes" above, will be deducted from the total amount dredged as excessive overdepth dredging, or excessive side slope dredging, for which payment will not be made. Nothing herein shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable provisions of the paragraphs FINAL EXAMINATION AND ACCEPTANCE or SHOALING below.

3.5 SURVEYS

3.5.1 General

The Contracting Officer shall be notified, in writing, 10 days in advance of the need for pre-dredging and after-dredging surveys. Surveys will be performed in accordance with the paragraph QUANTITY SURVEYS of Section 00700 CONTRACT CLAUSES; paragraph LAYOUT OF WORK of Section 01000 GENERAL REQUIREMENTS; Section 01452 DREDGING/BEACH FILL PLACEMENT - CONTRACTOR QUALITY CONTROL; EM 1110-1-1000, EM 1110-1-1002, EM 1110-1-1003, EM 1110-1-1004, EM 1110-1-2909, and EM 1110-2-1003; FBPSM; and, TSS. A copy of the EM's can be downloaded from the following web site: http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm. A copy of the TSS can be downloaded from the following web site: http://tsc.wes.army.mil.

3.5.2 Contractor Representative

All in-place measurement surveys and final acceptance sweep surveys will be performed with a representative of the Contractor on board the Government platform during the full execution of the survey. No in-place measurement or final acceptance sweep survey will be performed without a representative of the Contractor on board the survey vessel. The Contractor's representative shall be fully knowledgeable in offshore construction subsurface surveying procedures, techniques, equipment, and horizontal and vertical calibration methods, and state-of-the-art horizontal and vertical accuracy limitations. The Contractor's representative shall observe and review, in progress, the adequacy and accuracy of the survey for in-place payment purposes, and for the potential existence of collusion, fraud, or obvious error in the data.

3.5.3 Survey Certification

a. Immediately upon completion of any survey, the Contractor's representative shall, based on his on-site review of the survey execution, determine that the survey contains no evidence of collusion, fraud, obvious error, and that subsequent horizontal and vertical corrections are accurately annotated on the subsurface record.

b. The Contractor's authorized representative shall bring aboard the survey vessel a blank copy of the Certification Statement and shall attest to an acceptable survey by signing the Certification Statement before leaving the vessel. Sample copy of the Certification Statement is appended to the end of this Section.

c. In the event the Contractor's authorized representative observes (and quantifies) specific documentary evidence of either fraud, collusion, or obvious error, the survey will be immediately rerun. Resurveys will totally supersede any previously run survey and will be run over the full reach of any particular Acceptance Section.

d. If acceptability is not acquired after performing one resurvey of an Acceptance Section, a meeting shall be held between the Contractor and the Contracting Officer to expeditiously resolve the issue causing rejection of the survey. Contractor equipment and personnel standby time to resolve acceptability of the survey shall be at the Contractor's expense.

e. In no case shall a previously unacceptable survey be later judged acceptable by the Contractor; unless such a reassessment/reevaluation is performed within 24 hours after the original survey, and prior to initiating any resurvey action based upon identifiable collusion, fraud, or obvious error.

f. Should the Contractor or his authorized representative refuse to certify to the acceptability of a survey for contract payment without identifiable collusion, fraud, or obvious error, then the following actions will follow:

(1) Preconstruction (pre-dredging) Survey: Excavation shall not commence until representatives of the Contractor and Contracting Officer have met and resolved the basis for refusal of certification. Should the Contractor commence excavation prior to obtaining an acceptable survey, he shall be liable for any excavation performed. If a resurvey is performed, and accepted, prior excavation will not be measured, estimated, or paid for.

(2) Post-construction (after-dredging) Survey: The 3-week survey window allowed under subparagraph "Measurement" of Section 01270 MEASUREMENT AND PAYMENT will be indefinitely extended until a final survey is accepted. Any material accretion which might occur due to such a time extension will neither be measured, estimated, or paid for.

(3) Refusal to Certify: Contractor equipment and personnel standby time to resolve his refusal to certify to the acceptability of a survey when there is no identifiable collusion, fraud, or obvious error shall be at the Contractor's expense and resultant delays shall not be the basis for time extensions of the contract.

g. Intermediate surveys taken between the pre-dredging and post-dredging surveys will not be considered for the purposes of determining quantities for final payment and acceptance of the area dredged.

3.6 INSPECTION

3.6.1 Quality Assurance Representative (QAR)

The QAR shall be notified prior to the establishment of horizontal control work (baseline layout, ranges, station flags, shore-based control for EPS/RPS, etc.) and vertical control work (tide staff(s), upland cross sections, construction elevations top/invert, maximum/minimum elevations of dredged materials within disposal area(s), etc.), but the presence or absence of the QAR shall not relieve the Contractor of his responsibility for proper execution of the work in accordance with the specifications. The Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any QAR, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the work. However, the Contractor will not be required to furnish such facilities for the surveys prescribed in the paragraph FINAL EXAMINATION AND ACCEPTANCE of this Section.

b. To furnish, on the request of the Contracting Officer or any QAR,

suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant, and to and from the disposal area(s).

3.6.2 Failure to Comply

In conjunction with the Clause INSPECTION OF CONSTRUCTION of Section 00700 CONTRACT CLAUSES, should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer and the cost thereof will be deducted from any amounts due or to become due the Contractor.

3.7 FINAL EXAMINATION AND ACCEPTANCE

3.7.1 Final Examination of Work

As soon as practicable and no later than three (3) weeks after the completion of the entire work or any section thereof (if the work is divided into sections) as in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding or by sweeping, or both, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same by dragging the bottom or by dredging at the contract rate of dredging. The Contractor or his authorized representative will be notified when soundings and/or sweepings are to be made and will be permitted to accompany the survey party. When the area is found to be in a satisfactory condition, it will be accepted finally. Should more than two sounding or sweeping operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sounding or sweeping, the cost of such third and any subsequent soundings or sweeping operations will be charged against the Contractor at the rate of $5,500 per day for each day in which the Government plant is engaged in sounding or sweeping and/or is enroute to or from the site or held at or near the said site for such operation.

3.7.2 Final Acceptance

Final acceptance of the whole or a part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

3.8 SHOALING

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished channel because of the natural lowering of the side slopes, redredging at contract price, within the limits of available funds may be done if agreeable to both the Contractor and the Contracting Officer.

3.9 NOISE CONTROL

All hauling and excavating equipment and dredges, boats, and tugs used on this work shall be equipped with satisfactory mufflers or other noise abatement devices. The Contractor shall conduct his operations so as to comply with all Federal, State and local laws pertaining to noise. The use

of horns and whistle signals shall be held to the minimum necessary in order to ensure as quiet an operation as possible.

3.10 DAILY REPORT OF OPERATIONS

See APPENDIX A at the end of this Section (4 pages).

3.11 CERTIFICATION STATEMENT

See APPENDIX B at the end of this Section (1 page).

3.12 DECLARATION OF INSPECTION FOR REFUELING

See APPENDIX C at the end of this Section (3 pages).

-- End of Section --